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# NORTH FREMONT COUNTY WASTEWATER FACILITIES

ENVIRONMENTAL PROTECTION AGENCY

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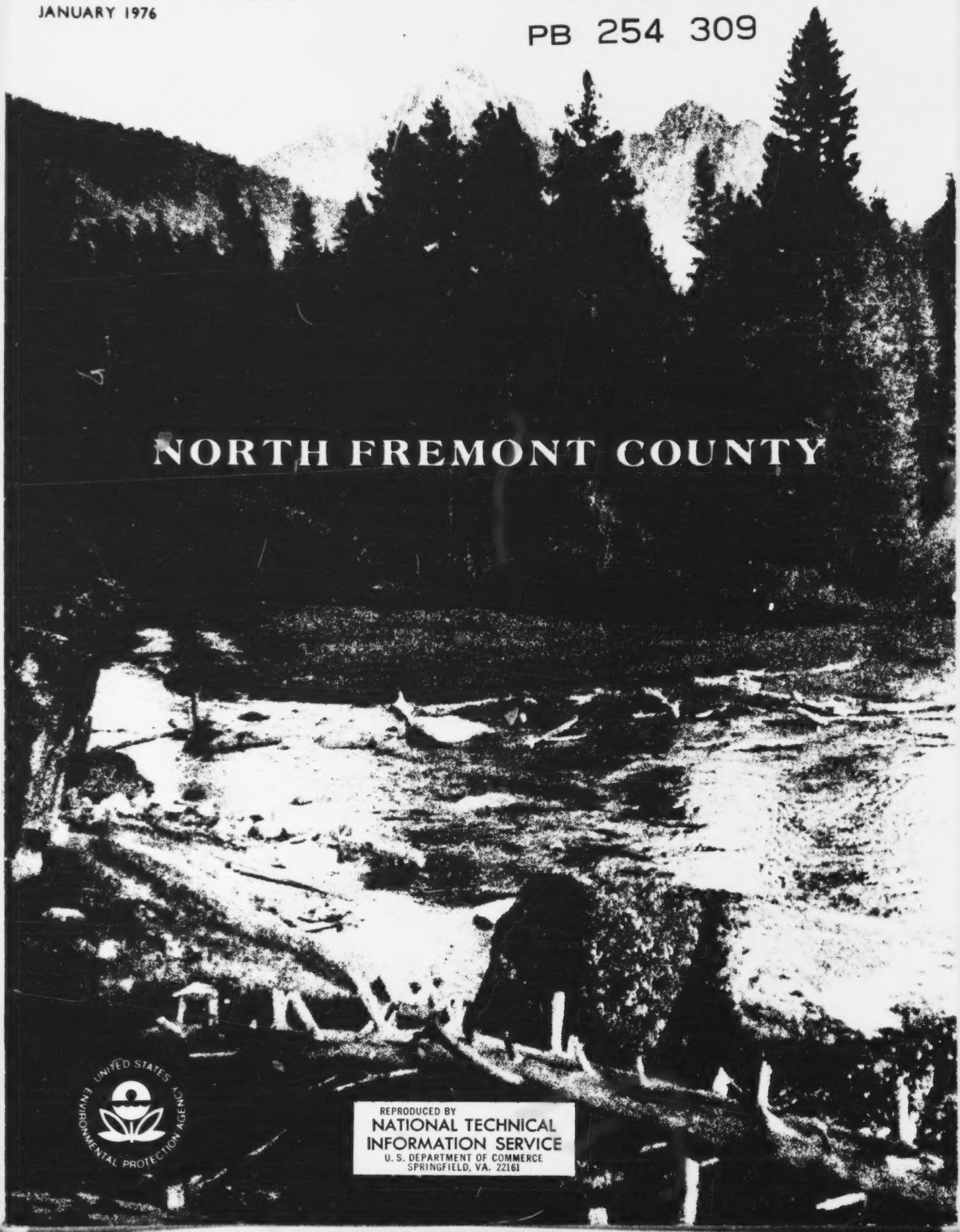

# NORTH FREMONT COUNTY

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Region X Environmental Impact Section
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1200 Sixth Avenue
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This environmental impact statement is an independent evaluation by EPA of the social, economic, environmental and engineering aspects of the construction of a proposed wastewater treatment plant for the northern half of Fremont County, Idaho, known as the "Island Park Area." Evaluation was made following a facilities planning grant to the county and completion of the North Fremont County Sewer Facilities Planning Study by Forsgren, Perkins, & Asso, Rexburg, ID. Of particular concern are the problem of coliform bacteria contamination of surface and ground waters in the area, and the possible impacts on land development which the treatment plant might cause.

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FINAL
ENVIRONMENTAL IMPACT STATEMENT

NORTH FREMONT COUNTY
WASTEWATER FACILITIES

EPA Project No. C-160186-01

Prepared by

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X
SEATTLE, WASHINGTON 98101

January 1976

Clifford V. Smith, Jr., Ph.D., P.E.
Regional Administrator

Date: Dec 31, 1975

## PREFACE

On September 19, 1975 EPA released to the public a draft EIS on a project proposal by Fremont County, Idaho to provide sewerage facilities for four sub-areas in the Island Park Area. The EPA "significant action" requiring this EIS is the approval of the County's facilities plan and the subsequent awarding of Step II design and Step III construction grant funds. During the public comment period, 13 letters were received commenting on the draft EIS. Three of these were from individuals living in the Yale Creek portion of the I.P. Bill's Island sub-area, the remainder from State and Federal agencies and the League of Women Voters. These letters and EPA's response are contained in a new Chapter VIII in this final EIS, entitled "Comments to the draft EIS and Responses". Where required, changes have also been made to the body of the EIS; these changes have been minor in nature.

This EIS is being written utilizing a trial concept called the "layering approach", wherein the draft EIS is built upon the facilities plan as a base. The draft EIS for this project actually was bound together with the County's facilities planning study. The advantage of this technique is the savings in time and expense of producing the EIS, and the ease with which the public can assimilate the information necessary for decision-making. The EIS is therefore shorter, non-duplicative of the environmental assessment contained in the facilities plan, and issue-oriented. This final EIS, however, is being published as a separate document without the facilities planning study that accompanied the draft. We expect that this will not present a problem, since our distribution list is the same as for the draft. Cost of producing the entire document again would have been prohibitive.

The principal concern prompting this EIS was the possibility of the proposed project resulting in significant secondary impacts on the natural resources in the Island Park area; that is, the project might encourage excessive residential, commercial, and recreational development that would have significant adverse effects on wildlife, water quality, and aesthetic and recreation values. Responses to the draft EIS did not indicate this to be a common concern. Rather, supporters of the project felt that the long-term water quality benefits and the possibility of controlling future development far outweighed potential adverse impacts. EPA also concluded that the project as proposed was basically acceptable environmentally, had immediate and long-term significant water quality benefits, and was necessary to protect and enhance existing environmental quality. EPA, therefore, concurs in the proposed project, with conditions as specified in the following discussion.

Both the Idaho Historical Society and the President's Advisory

Council on Historic Preservation declared the coverage of historical, architectural, cultural and archaeological features of the project to be inadequate. EPA, therefore, contracted with Professor Robert Butler, Acting Chairman of the Idaho State University Department of Anthropology, for the conduct of an archaeological survey of the Island Park area. A final report of this survey's findings is included in this final EIS as Appendix A. It suggests that artifacts may exist in the project area and suggests the location of test pits prior to sewerage system excavation. EPA is therefore recommending, as a mitigative measure, the following grant condition:

> Fremont County shall, prior to the commencement of construction excavation activities in the project sub-areas, comply with the recommendations contained in the Final Report of Archaeological Survey by Prof. R. Robert Butler, dated December 23, 1975. Test pit excavations shall be made and they shall be evaluated by the Idaho State Historical Society, which will provide recommendations regarding further development.

Several letters of comment on the draft EIS expressed the concern that inadequate evaluation was given to the use of private lands for waste treatment and disposal facilities as compared to the use of "low cost" public lands under control of the U.S. Forest Service or Bureau of Land Management. The County's consultant has agreed to further cost-effectiveness evaluation of treatment and disposal sites. EPA, therefore, suggests the following grant condition:

> Prior to final approval of the facilities plan, the County shall present the results of cost-effective evaluation of private and public lands for sub-area treatment and disposal sites, using actual site costs whenever available. Prior approval of the appropriate agency shall be obtained for proposed use of any specific sites located on public lands.

Finally, the area of concern which EPA feels to be the key consideration in the avoidance of future adverse secondary impacts associated with growth and development within the project area is the extent to which Fremont County develops, adopts and implements an effective comprehensive land use plan with necessary zoning ordinances. It is our conclusion that the growth projections suggested by the County are reasonable, and that this growth will occur with or without the project. In the absence of sewers, growth will occur in a more haphazard and less controlled fashion, and perhaps over a longer period of time. Effective land use planning and zoning then becomes a key component in controlling growth. With this management tool properly utilized, EPA feels that the provision of a sewerage system can actually help to insure that development occurs in an orderly fashion that helps protect environmental quality. The

County should be assisted in the development and implementation of land use planning by agencies having land use management responsibilities and the technical expertise for evaluating the carrying capacity of the Island Park natural, physical, human and related resources. EPA feels the following grant condition to be necessary:

> Fremont County shall, in accordance with the State of Idaho Local Planning Act of 1975 (Chapter 65, Title 67, Idaho Code), develop and properly adopt a comprehensive land use plan and implementing zoning ordinances applicable to the project area. The comprehensive plan shall include the participation of land use management agencies in its formulation, implementation, and regular review and evaluation. Agencies considered for participation shall include such agencies as the Idaho State Land Board; the Idaho Department of Fish and Game; the Forest Service, U.S. Department of Agriculture; and the Bureau of Land Management, U.S. Department of Interior. This condition shall be applicable to the Step II design grant and, as the project progresses, shall be carried over to apply to the Step III construction grant award. Payment beyond 80% on the Step III construction grant shall be contingent upon the satisfaction of this condition.

EPA submits this final EIS for a public review period of 30 days, during which time comments are invited. Following this review period, the Regional Administrator of EPA will make a determination concerning approval of Fremont County's facilities plan and eligibility of the project for subsequent design and construction grants.

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SUMMARY SHEET

NORTH FREMONT COUNTY, IDAHO
WASTEWATER FACILITIES
E.P.A. PROJECT NO. C-16 0186-01

ENVIRONMENTAL IMPACT STATEMENT

Environmental Protection Agency
Region X
1200 Sixth Avenue
Seattle, Washington 98101

1. Type of Statement: Draft ( ) Final (X)

2. Type of Action: Administrative

3. Brief Description: The EPA administrative action necessitating this Environmental Impact Statement is the awarding of grant funds to Fremont County, Idaho, for the design and construction of sewerage facilities serving the Island Park area.

3. Summary of Impacts: The project would result in the elimination of septic tank discharges of inadequately treated domestic sewage to surface and groundwaters. There is currently documented contamination of these waters with levels of fecal coliform in excess of State and Federal standards, in some cases constituting significant health hazards. Provision of collection, interceptor, and treatment facilities would have the effect of accelerating recreational demand, with associated secondary effects such as increased noise, traffic, and recreational pressure. The provision of facilities phased over time in specific sub-areas should serve to help control growth and reduce undesired sprawl.

4. Alternatives Considered:

Treatment Processes:
- Chemical-Biological
- Physical-Chemical
- Physical-Chemical with Biological pre-treatment
- Non-aerated Facultative Lagoon
- Aerated Lagoon

System Configuration:
- Regionalization
- Sub-Areas (six)
- Sub-Area Zones
- Treatment Sites

No project (or delayed action)

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5. Distribution: The agencies, groups and individuals on the mailing list for this environmental impact statement are attached.

6. Availability: Date this Final EIS made available to CEQ and the Public:

# CHAPTER I

## BACKGROUND & DESCRIPTION OF PROPOSED ACTION

### Background & History

On June 3, 1974, EPA Region X's Idaho Operations Office received from the State of Idaho, Fremont County's application for financial assistance for wastewater facilities planning. The application requested approximately $75,000 in Federal funds and $15,000 in State funds to perform the $100,000 "Step I Facilities Planning" Study of water quality problems in the Island Park area. Processing of the application was completed and the grant awarded to Fremont County on July 31, 1974. The firm of Forsgren, Perkins, & Associates, Consulting Engineers in Rexburg, had already been retained to accomplish the work. A first draft of the report was published in November 1974, followed by meetings, public hearings, and additional field study. The final draft was completed in June 1975; additional public hearings were held in St. Anthony on July 2 and in Island Park (Mack's Inn) on July 19. The final North Fremont County Sewer Facilities Planning Study was released on July 28, 1975.

### EPA's Environmental Responsibilities and Activities

The National Environmental Policy Act of 1969 (NEPA), Public Law 91-190, required all Federal agencies to, ". . . utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment . ." Section 102(2)(C) of that Act also requires the agency to prepare an environmental impact statement (EIS) on, ". . . major Federal actions significantly affecting the quality of the human environment . . ." This is to be accomplished in consultation with the Council on Environmental Quality (CEQ), established by Title II of the Act.

One of the major EPA programs involving actions which are candidates for EIS's is the construction grants program as authorized by Title II - Grants for Construction of Treatment Works, Section 201(g)(1), of the Federal Water Pollution Control Act Amendments of 1972 (FWPCA), (Public Law 92-500). The Act authorizes the Administrator, EPA, ". . . to make grants to any State, municipality, or intermunicipal or interstate agency for the construction of publicly owned treatment works . . ." The Regional Offices, in turn, have been delegated the authority to fund State-approved wastewater treatment projects. Concurrent with all

of these authorities is the responsibility to assure Federal funds will produce a project which will have maximum beneficial effects on the environment and minimum adverse effects.

The Public Laws quoted above, along with the CEQ and EPA Regulations, constitute the authority and responsibility for the preparation of environmental impact statements on wastewater treatment works or facilities or areawide wastewater management plans when deemed necessary by the Regional Offices of EPA. Final regulations for the preparation of environmental impact statements by EPA were published in the Federal Register, Volume 40, No. 72 on 14 April 1975. Under these regulations, an "environmental impact statement is a report prepared by EPA, which identifies and analyzes in detail the environmental impacts of a proposed EPA action and feasible alternatives." With regard to Fremont County, municipalities and local agencies are required, when planning for construction of publicly owned treatment works, to evaluate the environmental impacts of the construction and subsequent operation of the treatment works and to prepare an environmental assessment. This assessment was presented in the Facilities Plan. EPA must review the assessment, collect corroboratory evidence when necessary and, ultimately, issue a negative declaration or, if the project is expected to have significant adverse primary or secondary effects or to be highly controversial, prepare an environmental impact statement, as has occurred in this case.

In the case of Fremont County's proposed project for the Island Park area, EPA actively participated in the review of the County proposal. The need for a thorough environmental assessment was discussed with the grantee and their consultant in pre-application meetings held on March 27 and May 12, 1974 in the project area. The possibility of controversy, the nature of the sensitive environment, and the potential for significant land use changes identified this project from early on as a candidate for an environmental impact statement (EIS). Field inspections of the project area were made on several occasions by Region X EPA staff. As EPA conducted its environmental review as required by the April 14, 1975 Regulations, the grantee's assessment contained in the Facilities Plan was evaluated and determined to be generally satisfactory from a technical and environmental standpoint. Although significant public controversy was not demonstrated by the public hearings or during following comment periods, careful review of the criterion contained in 40 CFR 6.510 clearly indicated an EIS to be required. Principal concerns are:

1. The extent to which continued recreational development will impact the area resources;

2. The extent to which the availability of sewerage facilities will induce land use changes or rate changes;

3. The absence of local land use planning which might serve to control development or mitigate adverse impacts; and

4. Significant adverse secondary effects on ecosystems in general and especially on fish and wildlife habitat.

EPA Region X, therefore, issued a Notice of Intent to Prepare an EIS on August 18, 1975. This document is that EIS, and constitutes an independent evaluation by EPA of the social, economic, environmental, and engineering aspects of the project. In an effort to keep the EIS as short as possible, the County's Sewer Facilities Planning Study dated July 28, 1975, was attached to the draft EIS as a part of the EIS, with reference to the Study throughout the text. All references to text, figures, and tables made in this final EIS also will be to the County's Sewer Facilities Planning Study unless otherwise stated.* Other planning documents, engineering reports, and correspondence received on the project have also been taken into consideration in preparing this EIS.

## The Study Area

The Study area includes the entire north half of Fremont County, more generally referred to as the "Island Park Area." The City of Island Park actually has corporate boundaries running from the Last Chance - Pond's Lodge area on Highway 20 in the south some 29 miles north to the Valley View Ranch north of Mack's Inn on Highway 20, although most of the area included is restricted to the property immediately adjacent to the highway. The entire Study area is best shown on Figure 3, and consists of State-owned lands, public lands managed by the U.S. Forest Service (Targhee National Forest) and Bureau of Land Management, and private land.

Actual sub-areas selected for detailed study are as follows:

Figure 4 - Henry's Lake
Figure 5 - Mack's Inn - Island Park Lodge
Figure 6 - Big Springs - Moose Creek
Figure 7 - I.P. Bill's Island - Yale Creek
Figure 8 - Last Chance - Pond's Lodge
Figure 9 - Pinehaven

For the purpose of this Study, these sub-areas comprise the project area described as the "Island Park Area," since they are principally centered around the town of Island Park and Island Park Reservoir. They represent the principal areas of development now experiencing water quality problems suggesting a need for sewerage facilities. These sub-areas were further divided into zones to facilitate the cost-effective analysis.

* Because the mailing list of this final EIS largely duplicates that of the draft EIS, and because of the cost of again reproducing the County's Sewer Facilities Planning Study, readers are requested to refer to Attachment 1 of the Fremont County draft EIS for these references.

## The Study

Authorization & Need: On March 10, 1970, the County authorized Forsgren, Perkins, & Associates to prepare the Comprehensive Sewer and Water Plan, completed in November of 1971. Although this Study covered the general need for sewerage facilities in the Study sub-areas described above, the sources of pollution had not been adequately identified. Little specific water quality data had been collected for parts of the sub-areas, particularly for chemical constituents. During the same time period, Federal requirements relating to the type of studies which needed to be performed in support of applications for financial assistance were changing fast, particularly with passage of the Federal Water Pollution Control Act Amendments of 1972, P.L. 92-500. The County, therefore, authorized preparation of the North Fremont County Sewer Facilities Planning Study.

Objectives & Scope: The stated objectives of the Study were:

1. To make an inventory of environmental conditions.

2. To provide guidelines for correction of environmental problems identified in the Study.

3. To accurately define water quality problems through an in-depth investigation designed to identify types and sources of contamination.

4. To determine if sewage treatment facilities are needed in the Study area; and, if so, where to locate them.

5. To determine the most practical and environmentally sound waste management system, if such were deemed necessary.

6. To provide baseline data to measure the effects of corrective action, and to serve as a reference source for future growth and development within the Study area.

The parameters of the investigation were:

1. Identification of contaminant types alleged to be in the waters of the Study area.

2. Identification of sources of any contaminants located.

3. Identification of existing environmental conditions to include topography, climate, geology, soils, hydrology, water quality and quantity, land use, sensitive areas and organisms and the biology of the area.

Areas of possible recommendations were to include:

1. To recommend areas where corrective measures may be needed.

2. To recommend the most sound types of corrective measures.

3. To recommend the parameters of the economics involved.

4. To recommend an assessment of the action's impact upon present and future environmental requirements.

Environmental goals included:

1. Preservation of high quality surface waters.

2. Protection of groundwater resources.

3. Preservation and enhancement of fish and wildlife and their habitat.

4. Preservation and development of the recreational capacity of Island Park.

Procedures: The framework within which water quality studies were performed was the State of Idaho Water Quality Standards, Federally-approved and enforceable under the National Pollutant Discharge Elimination System contained in P.L. 92-500.

Test methods were those specified in Standard Methods for the Examination of Water and Wastewater, 13th Edition (1971). The membrane filter method of bacterial analysis was used for all surface and domestic water tests, with multiple tube analysis performed for shallow well samples due to excess turbidity.

A comprehensive network of sampling stations was designed to pinpoint problem sources and trace their movements throughout the surface and groundwater systems in the Island Park area. A detailed discussion is contained on pp. 37-47, Figures 11-17, and Appendix B of the Study. Some 61 stations were used for surface water sampling. New shallow wells were drilled; and individual domestic and commercial water supplies were sampled.

Analysis included fecal coliform and streptococcus, biochemical and chemical oxygen demand, nutrients, solids, and complete chemistry including toxicants. In an attempt to determine whether the coliform bacteria source was from animal or human sources, a method of comparing the ratio of fecal coliform to fecal strep count was used, as discussed on p. 47 of the Study. Although this method has certain limitations as mentioned, it is considered to be a valid method for making general conclusions.

The sampling period for this Study was May-September of 1974. This covers the heaviest period of recreation use and also the high and low runoff periods. Although there is some influence due to flow variations, the effect is minimal due to the reservoir and lake level controls and the constant background water quality conditions that exist naturally.

Findings: The Study showed quite conclusively that:

1. Fecal coliform bacteria from human sources are entering surface waters in the following sub-areas: Henry's Lake; Moose Creek; Mack's Inn; I.P. Bill's Island; Pond's Lodge; and Last Chance. Problems were not indicated in the Henry's Lake Flats; Big Springs; Yale-Hotel Creek; and Pinehaven areas.

2. Most shallow wells sampled had fecal coliform present at least once during the study, indicating poorly functioning subsurface disposal systems. One well sampled in the Mack's Inn area showed significant contamination levels during most of the sampling period.

3. Domestic wells supplying drinking water were contaminated in the Mack's Inn (all sectors), Pond's Lodge; and Last Chance areas.

4. Chemical analyses showed high nutrients present in nearly all samples from every area, although attempts to correlate phosphorus levels with population centers were inconclusive. Shallow well data did, however, support the conclusion that population centers are contributing to nutrient loadings. The Henry's Lake, Mack's Inn, and I.P. Bill's Island areas demonstrated higher than normal biochemical oxygen demand levels.

In summary, severe surface water quality problems attributed to inadequate sewage disposal systems are indicated in the Henry's Lake north shore area; Henry's Fork of the Snake River adjacent to Mack's Inn, McCrea's Bridge, and Last Chance developments; and the Buffalo River adjacent to the Pond's Lodge complex. Also, groundwater and domestic well tests indicate considerable contamination of subsurface water by septic tank drainfield effluents. The flow of these contaminated groundwaters into rivers, lakes, and domestic water supplies constitutes a major problem.

## Existing Treatment Facilities

The U.S. Forest Service owns and operates the only "community" treatment facility now existing in the Study area. This is a small non-overflow (complete retention) evaporative lagoon serving the Forest Ranger Station in the Pond's Lodge area. All other treatment units in the Study area are of the individual home septic tank with drainfield type. There is a high rate of "failure" of these individual systems due to the high groundwater table found in most areas. Where filter field capacities

are adequate, there is conclusive evidence of septic tank effluent being carried into streams and domestic wells on neighboring property.

Study Recommendations

The Study justifies the provision of individual collection, interceptor, and treatment facilities for each of the sub-areas as follows:

1. The north shore of Henry's Lake, Zone 1 only.

2. Mack's Inn - Island Park Lodge, Zones 1-4.

3. I.P. Bill's Island - Yale Creek, Zones 1, and 3-5.

4. Last Chance - Pond's Lodge, Zones 1-4.

The Study also indicates that expected growth may require inclusion of the following zones before the end of the design period (1994):

1. Henry's Lake, Zone 2.

2. Mack's Inn - Island Park Lodge, Zone 7.

3. I.P. Bill's Island - Yale Creek, Zone 2

Although high phosphorus levels in surface waters could not generally be traced to human sources, high levels were found in shallow wells but not in deep wells. This is evidence of the contribution of septic tanks to nutrient overloads, but is not necessarily justification for employing advanced waste treatment prior to discharge, at this time. However, the recommended treatment method - land disposal of disinfected effluent from aerated lagoons by spray irrigation - will preclude nutrients from reaching ground or surface waters and, in effect, does represent advanced waste treatment.

Description of the Proposed Project

Since the studies indicate that the waters in this area are being contaminated through the use of inadequate subsurface sewage disposal systems, the proposed sewage treatment systems are intended to accomplish the following:

1. Provide facilities, in those areas of significant existing or foreseen future development, which will prevent further contamination of the waters by eliminating the existing inadequate systems.

2. Allow the waters to recover their former natural conditions through natural assimilative action.

3. Preserve the beneficial uses for which the waters have been designated. (The waters of Henry's Lake and Island Park Reservoir are

classified as "Class $A_1$" Waters. All rivers and streams are classified as "Class $A_2$" Waters.)

The proposed project includes the collection system (not eligible for Federal participation), interceptors, aerated lagoon, winter storage, chlorination facilities, and spray irrigation system for each of the following areas:

1. Henry's Lake, Zone 1
2. Mack's Inn - Island Park Lodge, Zones 1, 2, 3, 4
3. I.P. Bill's Island - Yale Creek, Zones 1, 3, 4, 5
4. Last Chance - Pond's Lodge, Zones 1, 2, 3, 4

The lagoon method of treatment followed by stream discharge does not generally meet secondary treatment requirements. Therefore, spray irrigation was selected as a means of achieving secondary treatment with the added benefit of nutrient removal.

Development is expected to increase in the following zones to a level where treatment facilities may be required before the end of the design period of 20 years for this project:

1. Henry's Lake, Zone 2
2. Mack's Inn - Island Park Lodge, Zone 7
3. I.P. Bill's Island - Yale Creek, Zone 2

Facilities for these latter zones are included within the scope of this project. The treatment facilities will be designed with capacities for these areas, but the collection systems will not be installed until needed. The treatment facilities will be designed with capacity for the following average daily summer flows:

| | |
|---|---|
| 1. Henry's Lake | 51,400 gallons |
| 2. Mack's Inn - Island Park Lodge | 175,500 gallons |
| 3. I.P. Bill's Island - Yale Creek | 247,900 gallons |
| 4. Last Chance - Pond's Lodge | 104,200 gallons |

The summer flows were used for design because of the higher summer population. For further information concerning design flows, see Table 21, on page 117 and pp. 81-84 of the Study.

It was noted during the review of the Study that several discrepancies existed between the recommendations contained on pp. 74-80 and design data contained in Table 21 on pg. 117. After discussions with the consultant the following conclusions were reached:

1. Pg. 76 - Mack's Inn, Zone 7, was not discussed. Development in the area indicates that contamination problems will occur prior to 1994 and later provision should be made.

2. Pg. 77 - I.P. Bill's Island - Yale Creek, Zone 2 - The Study indicates that sewer service is not recommended for this zone. Future development, however, is expected to increase to a point where service will be required prior to 1994.

3. Pg. 79 - Last Chance - Pond's Lodge, Zone 6 - This zone should have been included with the discussion of Zone 5 which does not recommend service.

4. Pg. 117 - Table 21 - In accordance with the above, the following changes should be made:

(a) I.P. Bill's Island - Yale Creek - Remove Zone 2 from the column indicating zones to be served initially.

(b) Last Chance - Pond's Lodge - Remove Zone 5 from both columns indicating zones to be served. The population in this zone is so small that the criteria for design loads would change only slightly.

Existing development in the remaining zones of the study area is light and is not expected to increase significantly within the design life of the project. Therefore, the installation of collection and treatment facilities for those areas is not included in this project.

Further information concerning the rationale for selecting the zones to be included in this project can be found on pages 74 through 80 of the Study.

Present planning calls for construction of facilities at Mack's Inn - Island Park Lodge under the first phase. The facilities for Last Chance - Pond's Lodge, Henry's Lake, and I.P. Bill's Island - Yale Creek will be constructed under later phases. The phasing of the construction is based upon the severity of the contamination problems, the density of development for financial feasibility, and the availability of funds for the project. For further discussion of the funding problems, see Chapter V of this statement.

Conditions Without The Project

The County's Study presents a complete description of existing environmental conditions. The purpose of this section will be to merely summarize the environmental setting and list significant conclusions.

Climate: The climate of the study area can generally be described as "moderately severe." The winters are long and cold with heavy snowfall; summers are short but pleasant with a growing season of approximately 50 days in the Island Park vicinity. The average monthly temperature ranges from 13°F in January to 60°F in July, with the annual average at 36°F. Precipitation varies from 1.4 inches in July to 5.0 inches in January, with the annual average at 31.8 inches. The average annual evaporation is estimated at 27 inches; this being less than the precipitation means that an evaporative lagoon is not feasible without seepage or discharge of some sort (see discussion on treatment alternatives).

Topography: With only a few exceptions, the majority of the study area is relatively flat, with slopes of less than 5 percent. This is especially true of developable areas. Ground surface elevations are around 6,300 feet above mean sea level.

Geology & Soils: The study area is generally characteristic of a glaciated area, with major glaciers having created Henry's Lake and leaving massive fluvial outwash plains. Streams easily cut their way through this material. Richer soil nutrients and organics were deposited in valley bottoms, with side slopes more gravelly in nature. The County's 1971 Comprehensive Sewer and Water Plan contains a good discussion of soils throughout the study area, emphasizing their suitability for septic tank filter fields, pipe bedding, water retention structures, and sanitary landfill (pp. II-18 to II-20). The soil profile in the study sub-areas generally consists of 3 or more feet of sandy loam with some gravel, underlain by a more permeable sandy material. Large gravel, cobble, or fractured volcanic bedrock is normally found at four or five feet. There are, however, exceptions as normally found in most any large area.

Generally, soils limitations for septic tank use can be summarized as follows:

Henry's Lake area: No areas suitable for continued septic tank use due to high groundwater table.

Mack's Inn area: Only southeast section of the Island Park subdivision can support continued septic tank use; other sections have a high groundwater table or inadequate distances between adjacent filter fields.

I.P. Bill's Island - Yale Creek area: Very few acceptable areas due to high groundwater table.

Last Chance - Pond's Lodge area: Unsuitable throughout due to high groundwater.

Interestingly, the report mentions a "severe" earthquake, ground breakage, rock slide, and earth flow hazard in the Henry's Lake area. Further review indicates this hazard is not of a magnitude that would suggest special design considerations for sewage systems. It could have significance for the design of large dams or high-rise structures, but not for minor sewerage systems.

Hydrology

Henry's Lake has a mean depth of 25 feet, surface area of 9.5 square miles, and stores 90,300 acre feet; discharge is into the Big Springs flows, which constitutes the headwaters of the North, or Henry's Fork, of the Snake River. The next major body of water in the system is Island Park Reservoir, which has a mean depth of 13 feet, area of 13 square miles, and stores 143,000 acre feet. Flows of the Snake River and other major tributaries in the study area are as follows:

| | |
|---|---|
| Big Springs | 180 CFS |
| Henry's Lake Outlet | 53 CFS |
| Snake River below Reservoir | 590 CFS |
| Buffalo River at Pond's Lodge | 200 CFS |
| Moose Creek | 70 CFS |
| Yale Creek | 8 CFS (approx.) |
| Hotel Creek | 30 CFS (approx.) |

None of these streams causes any flooding problems.

Groundwater

Only preliminary unpublished groundwater data are available, but it appears that essentially all groundwater movement in the study area is toward and into surface water courses. Groundwater levels are generally within five feet of the surface. Except in the immediate vicinity of development, groundwater is of good chemical quality, low turbidity and color, and high in dissolved oxygen.

Water Quality

A 1973 study by the EPA demonstrated significant temperature, dissolved oxygen, phosphorus and ammonia nitrogen problems in Island Park Reservoir. It is generally concluded that domestic sources of pollution contribute to the problems, but the extent is unknown. The County's Study clearly shows deteriorating quality adjacent to commercial and private development, especially bacteriologically, as previously discussed. Wells are significantly affected by fecal coliform contamination due to "failing" septic tanks. The reader's attention is directed to the Study for detailed quality data.

Air Quality

Air is of the highest quality in the study area, as recreationists will quickly attest. Point sources of hydrocarbons are limited to motor vehicles and heating devices (including fireplaces). Periodically the open burning of slash in forested logging areas causes some nuisance.

Noise

Although no sound studies or measurements have been performed, noise levels would generally be considered satisfactory. There are no major "point sources" of noise, but rather those generally associated with traffic and residential and commercial establishments.

Plants

An excellent discussion of the plant community is contained on pp. 20-26 of the Study. The diversity is fairly well established, except for the predominance of lodgepole pine for natural forested areas. The Rocky Mountain Pine Beetle and dwarf mistletoe are causing significant pine damage. There is evidence of damage due to development, mainly resulting from tree and cover removal. The concluding statement of the Study, however, is that the forest area and type appear well-adapted to absorbing added human population, providing that increases are carefully planned.

Animals

There is, indeed, a unique and desirable diversity of animal species in the study area, which is probably representative of the neighboring regions of southwest Montana and Northwest Wyoming also. The reader is again directed to the Study, pp. 27-32, and Appendix A. Of special interest are moose, mule deer, elk, antelope, bear, and sasquatch for the larger animals; ducks, geese, sandhill cranes, and trumpeter swan for birds; and cutthroat, rainbow, and eastern brook trout, coho and kokanee salmon for fish species. The only "threatened" species is the grizzly bear (18 to 20). The Rocky Mountain Wolf (1 or 2 five-animal packs) and prairie falcon (infrequent) are "endangered" species. Unique species include the trumpeter swan, sandhill crane, northern bald eagle, golden eagle, osprey, ferruginous hawk, marten, and fisher.

The U.S. Department of the Interior has been consulted regarding possible impact of the proposed project on the "threatened" species, in accordance with the requirements of EPA's EIS Regulations, 40 CFR 6.214(a)(6), and Section 7 of the Endangered Species Act of 1973 (P.L. 93-205). It should be noted that there has been detrimental impact on threatened species habitat noted in the past, due to the development that has already occurred.

Socio-Economic

Scenic-Recreational: It would be redundant for anyone familiar with the Island Park area to say that the area offers unique scenic, aesthetic, and recreational opportunities. The area has experienced steadily increasing recreational pressure, both in the summer and more recently for winter snowmobiling. The close proximity to Yellowstone National Park contributes to this pressure. In 1970, the U.S. Forest Service estimated "People at One Time" (PAOT) usage and anticipated annual growth in recreation as follows:

| Area | 1970 PAOT | Annual Growth |
|---|---|---|
| Mack's Inn - I.P. Lodge | 2,150 | 7% |
| Last Chance - Pond's Lodge | 2,000 | 10% |
| I.P. Bill's Island - I.P. Reservoir | 1,200 | 20% |
| Henry's Lake | 920 | 5% |
| Big Springs | 390 | 4% |
| Moose Creek | 25 | 40% |
| Shot Gun Village - Yale Creek | 180 | 28% |
| Pinehaven | 100 | 35% |
| TOTALS | 6,965 | 11% (avg.) |

Had this growth been realized, the 1975 PAOT would have been 10,715. The Study on p. 85 shows a 1974 PAOT estimate of 7,733, but this figure does not include all of the areas and campgrounds included in the above table. It appears, then, that the 1970 Forest Service projections were realistic. Interest in snowmobiling has snowballed the last few winters. Pond's Lodge, for example, was only open summers five years ago. Now, not only is its summer trade higher than ever, 40% of its annual receipts are reported to be from winter trade. The recreation properties real estate trade continues to prosper, with condominiums now being added. With the exception of a small increase in St. Anthony, the Island Park area was the only part of Fremont County experiencing growth during the last 10 years, shown by the U.S. Census Bureau to be 60% during the period 1960-70. Needless to say, the economic impact of this growth is considered by the County to be most favorable.

From the social standpoint, the elimination of the health hazard from water supplies is of serious concern to the County and residents. The recent outbreak of intestinal disorders associated with the drinking water at Crater Lake National Park could perhaps occur at Island Park at a modified scale, since not all drinking water supplies are public. In some cases, developers and real estate salesmen complain of losses in property values due to sanitary sewage problems. Although there are no documented medical records, the State Health Office in Rexburg has some letters on file from various cabin owners who have complained that their wells are contaminated and that members of their families get intestinal problems following each visit to their cabins where well water was consumed.

Historical-Archaeological

There are no known historical, cultural, or archaeological sites within the study area, nor are there any sites felt to be eligible for inclusion on the National Register. Big Springs, which is not recommended for sewerage service, is a National Geological Site listed on the Register. Appendix A gives the results of a special survey of archaeological sites conducted during the EIS process.

Land Use

Current land use in the study area consists of recreation, logging, and agriculture, with recreation being notably the most important. Logging of commercial timber is under the supervision of the U.S. Forest Service. The only area with any significant agricultural operations is the Henry's Lake area, where there are approximately 200 acres under cultivation for wild hay. There are no other agricultural crops found in any of the other sub-areas. Cattle are grazed on much of the private lands and some of the surrounding Forest Service lands. A small geothermal area (KGRA) has been identified immediately adjacent to the west boundary of Yellowstone National Park. This is not anticipated to have any impact on the proposed project at this time.

Of the approximately 600,000 acres in the study area, most of the current ownership is public, administered by the U.S. Forest Service or U.S. Bureau of Land Management. Ownership is shown in general on Figure 2, and in detail for each sub-area on Figures 4-9. The State Land Board also administers appreciable holdings, approximately half as much area as is in private ownership. The 1971 County Comprehensive Sewer and Water Plan showed 46 recorded private subdivisions as of 1970 totaling 2,296 acres. The estimated PAOT capacity of these subdivisions was 11,982 persons. The current study lists 43 platted subdivisions in 1974 (Figure 3); no acreage is given, but it is assumed to be approximately the same as in 1970, or 2,300 acres. It is estimated that at present, some 25% of the platted subdivisions are developed; however, it is also estimated that from 80 to 90% of the lots in these subdivisions are sold. In the way of a gross estimate, then, land ownership might break down as:

| | |
|---|---|
| Public | 596,000 acres* |
| State | 1,700 acres |
| Private | 2,300 acres |
| TOTAL | 600,000 acres |

*Page II-8 in the 1971 Comprehensive Sewer and Water Plan lists 3,777 acres of recreation sites located on U.S. Forest Service lands.

From these figures, as approximate as they may be, if it is assumed that over the life of the proposed project all of the Forest Service recreation sites, State land, and private land will be developed,

this amounts to 7,777 acres, or 1.3% of the total study area. This comparison may be of interest in the consideration of loss of wildlife habitat as development in the Island Park area occurs.

Population

The following table of existing and projected population is extracted from the 1971 County Comprehensive Sewer and Water Plan, based on 1970 U.S. Census information:

| Island Park Division | 1960 | 1970 | 1975 | 1980 | 1990 |
|---|---|---|---|---|---|
| Permanent | 232 | 371 | 450 | 500 | 600 |
| Summer Homes & Gov't. Camping Facilities | --- | 5,000 | 15,000 | 25,000 | 50,000 |
| Tents & One-Day Visitors | --- | 5,000 | 8,000 | 12,000 | 15,000 |
| TOTALS | 232 | 10,371 | 23,450 | 37,500 | 65,600 |

The basis for projecting population is always a matter of special concern in the environmental evaluation of a proposed project. Unfortunately, in a fast growing recreation area, a valid basis for making projections is difficult, at best, to develop. The projections used by the County for the current project design are based on U.S. Forest Service records, real estate records, commercial establishment records, and current growth trends observed locally. This has resulted in the following projection summarized from Table 12 (PAOT basis):

| Study Sub-Area | Present 1974 | Proposed 1994 |
|---|---|---|
| Henry's Lake | 596 | 2,078 |
| Mack's Inn - I.P. Lodge | 2,571 | 5,701 |
| Big Springs - Moose Creek | 315 | 315 |
| I.P. Bill's Island - Yale Creek | 2,409 | 8,343 |
| Last Chance - Pond's Lodge | 1,653 | 3,436 |
| Pinehaven | 189 | 340 |
| TOTALS | 7,733 | 20,213 |

This represents a 20-year overall projected growth of 160%. Although this appears optimistic, recent experience in recreational development and associated growth in the Island Park area would suggest this projection to be realistic.

Land Use Controls

The Fremont County Planning and Zoning Commission was organized in August of 1969. They currently have not developed or implemented a formal land use plan or zoning ordinance. However, such a program is now underway. The County does have a Subdivision Resolution, the purpose of which is ". . . facilitating the orderly growth and development of the County; lessening congestion in the roads or streets; preventing the overcrowding of land; avoiding undue concentration of population; securing economy in County expenditures; facilitating adequate provisions for transportation, water, sewerage, schools, parks and other public

requirements; stabilizing the value of property; and increasing the security of home life."

The requirements of this Resolution regarding sanitary facilities plus policy which the County has developed has resulted in the County Planning Commission not allowing platting of development unless all of their criteria are met, including:

1. Final engineering of proposed development completed prior to submission of plan.

2. Completion and recording of covenants.

3. Approval of sewage systems by the Department of Health.

Currently, sites located in areas of high groundwater cannot use individual septic tanks and filter field disposal systems, and permits are denied by the Department of Health. Both the U.S. Forest Service and the Idaho State Land Board exercise land use controls in effect as they administer their own systems of permits, easements, etc.

Other Agency Programs or Projects

The only other agency, program, or project which affects the provision of sewerage facilities is the U.S. Forest Service. As previously mentioned, they now operate a complete retention lagoon serving their Ranger Station. This facility would be abandoned and their collection system tied directly into facilities constructed by the County. The Forest Service has indicated its willingness to fully cooperate in the provision of centralized sewerage facilities, and has funds reserved for their participation now through their A-81 budgeting process. The Forest Service has some plans for later construction of collection systems to serve their recreation sites, such as the Flat Rock campground, and funds are also reserved for this purpose.

The Forest Service currently hauls all wastes generated at its facilities (other than its Ranger Station) to State-approved treatment facilities by contract.

# CHAPTER II

# PROJECT ALTERNATIVES

## Treatment Process Alternatives

The alternatives investigated by the applicant for primary-secondary treatment were:

1. Mechanical - Biological Treatment.

2. Physical - Chemical Treatment

3. Physical - Chemical Plant with High Rate Activated Sludge (HRAS) Pretreatment

4. Non-Aerated Facultative Lagoon

5. Aerated Lagoon

In addition, the alternative of no action, or continuation of the existing condition, was discussed. Alternatives for nutrient removal, or tertiary treatment, were also investigated. The need for this additional level of treatment is discussed at the end of the section entitled "Study Recommendations" in Chapter I of this statement. These alternatives were:

1. Nitrogen Removal

    a. Nitrification - Denitrification

    b. Ammonia Stripping

    c. Removal by Soil - Plant System

2. Phosphorus Removal

    a. Chemical Coagulation - Filtration

    b. Land Sprinkling

        (1) Spray Irrigation

        (2) Overland Flow

        (3) Rapid Infiltration Ponds

The preliminary analysis of the alternatives was based on the goals and constraints pecular to North Fremont County. The goals were:

1. Preservation of high quality surface waters.

2. Protection of groundwater resources.

3. Preservation and enhancement of fish and wildlife and their habitats.

4. Preservation and development of the recreational capacity of the area.

The constraints were:

1. Local climate (long, cold winters).

2. Available land suitable for recreational development.

3. Forest Service management plans.

Additional restrictions were:

1. Extreme flow variations.

2. Treatment of flows containing only sanitary wastes.

The mechanical - biological treatment system (activated sludge) is the most common method used. It consists of the removal of large pieces of debris and grit, the settling of smaller solids, and the biological removal of organic material. This is followed by chlorination and disposal. Sludge treatment and disposal is also required. This process does not operate efficiently under extreme flow variations.

Physical - chemical treatment consists of the removal of grit and debris followed by chemical coagulation and filtration through activated carbon or sand. This process may include non-chemical sedimentation as a primary step. Disinfection and sludge handling are also required. This process can also accomplish nutrient removal.

Physical - chemical treatment with HRAS greatly increases the efficiency of the physical-chemical system and may eliminate the need for activated carbon absorption. It is essentially a combination of the first two alternatives.

A non-aerated facultative lagoon is simply a pond of sufficient depth to provide a top aerobic layer and a bottom anaerobic layer. The particular type investigated is the complete retention type, meaning that evaporation and percolation into the soil occur over time at the same rate as sewage enters the lagoon.

The aerated lagoon has oxygen introduced mechanically to the pond rather than relying on surface-air contact and wave action. An anaerobic bottom layer still results from the settling of solids. The effluent from the pond is subjected to further sedimentation and disinfection prior to disposal.

The no-action alternative would be the continuation of septic tanks with drain fields. This has proven to be unsatisfactory for the health and social reasons presented in Chapter I.

Nitrogen removal through nitrification-denitrification is a two-step process. The ammonia is converted to nitrate by aerobic bacteria. Anaerobic bacteria then act on the effluent to convert the nitrate to nitrogen gas. Ammonia stripping is accomplished by raising the pH of the effluent through the addition of lime and subjecting it to high rates of aeration. The use of the soil-plant system is the same as land disposal and is discussed under phosphorus removal.

The chemical coagulation-filtration system for phosphorus removal is essentially the same method as physical - chemical treatment. Removal of nutrients by the soil - plant system, or land sprinkling, consists of the placement of the effluent on the soil to allow filtration by the soil and nutrient uptake by vegetation and soil particles.

The alternative treatment methods, both primary-secondary and tertiary are described in more detail in Chapter VIII of the Study. Based on the constraints listed, the alternatives meriting further consideration were limited to:

1. Physical chemical plant
2. Non-aerated lagoons
3. Aerated lagoons

The following table is a summary of the analyses performed on the alternatives together with the principal reasons for rejection.

## ANALYSIS OF ALTERNATIVES

| Alternative | Major Advantages | Major Disadvantages | Rejected | Principal Reasons |
|---|---|---|---|---|
| A. Primary-Secondary | | | | |
| 1. Physical-Chemical | 1. Small land requirements<br>2. High efficiency<br>3. Nutrient removal | 1. Requires highly qualified operator<br>2. Most Expensive<br>3. Must be designed for peak daily flow | Yes | 1. Cost<br>2. Flow fluctuations |
| 2. Non-aerated Lagoon | 1. No effluent<br>2. Simple operation | 1. Large land area requirements<br>2. Odor problems | Yes | Land requirements |
| 3. Aerated Lagoon | 1. Smaller land area than non-aerated lagoon<br>2. Odor-free<br>3. Simple operation<br>4. Handles extreme flows | 1. More land than Physical-Chemical plant<br>2. Requires nutrient removal | No | |
| B. Tertiary | | | | |
| 1. Nitrification-Denitrification | 1. 90% removal efficiency | 1. Not adaptable to flow fluctuations<br>2. Complex operation<br>3. High cost | Yes | 1. Cost<br>2. Flow fluctuation |
| 2. Ammonia Stripping | 1. Can be used in physical-chemical plant that uses lime<br>2. High efficiency | 1. High costs<br>2. Complex operation | Yes | 1. Costs<br>2. Not practical for lagoons |

| | | | | |
|---|---|---|---|---|
| 3. Chemical-Coagulation Filtration | 1. Usable with aerated lagoons<br>2. Same as physical chemical<br>3. High efficiency | 1. Requires winter storage<br>2. High costs<br>3. Complex operation | Yes | 1. Costs<br>2. Operation |
| 4. Land Disposal | | | | |
| a. Overland Flow | 1. Used in areas of low soil permeability | 1. Less efficient than spray | Yes | Efficiency |
| b. Rapid Infiltration Pond | 1. Less land requirements | 1. Requires six months rest Period<br>2. Less efficient than spray | Yes | Efficiency |
| c. Spray Irrigation | 1. Highest efficiency<br>2. Optimizes removal of bacteria and viruses<br>3. Easiest to operate<br>4. Increases crop productivity | 1. Requires more land<br>2. Requires winter storage | No | |

The following table is a summary of costs for the three systems, including storage and tertiary treatment.

| Alternative | Total Estimated Present Worth |
|---|---|
| Physical-Chemical Plant | $361,500 |
| Non-aerated Lagoon | $257,300 |
| Aerated Lagoon | $192,600 |

The environmental effects of the alternatives are presented on page 78 of the Study. In essence, the proposed action is preferable.

## Site Alternatives

For each of the study sub-areas, at least two alternative sites were considered. These are discussed in Chapter IX of the Study, and the general area of the preferred sites are indicated on figures 18-21. The following table summarizes the estimated costs of the proposed system, together with the principal reasons for selection.

ANALYSIS OF FACILITY SITES

| Sub-Area | Selected Alternative Site Number | Estimated Cost | Principal Reasons for Selection |
|---|---|---|---|
| Henry's Lake | 3 | $204,000 | 1. Area suitable for spray irrigation<br>2. No development pressure in area<br>3. Least environmental impact |
| Mack's Inn - Island Park Lodge | 1 | $234,800 | 1. Situated between two principal developed areas<br>2. Low development inducement |
| I.P. Bill's Island - Yale Creek | 1 | $749,600 | 1. Most suitable topographically<br>2. Area suitable for spray irrigation<br>3. Low development inducement |
| Last Chance - Ponds Lodge | 3 | $440,100 | 1. Area suitable for spray irrigation<br>2. Close to existing development |

# CHAPTER III

## ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

### Water

The construction of sewage treatment facilities under this project will decrease the input of human fecal contaminants to the waters of the area. Those sub-areas and zones for which facilities are not being provided under this project will continue to use septic systems which may not be adequate. The study, however, indicates that development in those areas is light and the amount of contaminants reaching the waters will be small. The improved quality of the waters resulting from this project will increase the assimilative capacity of those waters. As development in the unserved areas increases, it is expected that other projects will be initiated. The removal of inadequate septic systems should improve the quality of groundwater as a drinking water source.

Some of the nutrients in the waters will be removed by means of the spray irrigation process. Phosphorus concentrations in the waters resulting from high phosphorus content of the geological formations (see p. 62 of the Study) will continue. The quality of water in Henry's Lake and Island Park Reservoir with respect to phosphorus content should be improved by the removal of that contaminant in the treatment process.

There is expected to be some increase in development in the area induced by the construction of the proposed treatment facilities. This will result in increased wastewater flows and some erosion and runoff which is associated with development. This will be limited, however, to the areas served by the proposed treatment facilities. The induced development is discussed further under "Secondary Impacts" below.

Some erosion and turbidity of the water will result from the construction process, but this will be partially controlled by reseeding and the use of proper construction procedures. The impacts of the construction are expected to be generally of a temporary nature.

### Air Quality

The service area experiences no existing or pending air quality problems. During the construction of the facilities, some air pollution from dust and exhaust from the construction equipment can be expected. This will be partially controlled through proper construction practices and will be temporary.

Some increase in pollution from the heating systems and exhaust from vehicles and snowmobiles can be expected to result from the development induced by the proposed facilities. The impacts caused by the induced development are discussed under "Secondary Impacts" below.

Some odors may be detected at times of sudden overload or at spring breakup of ice conditions on the lagoons. The aeration process should prevent the ice conditions and maintain the aerobic status in the lagoon so that only rarely would odors result, and these would be of short duration.

The effluent from the lagoons will be chlorinated prior to disposal through the spray irrigation process. Therefore, there should be no transfer of bacteria through the spray process. The spray equipment is designed to produce larger droplets, thus reducing the likelihood of transmission of bacteria or viruses in aerosols.

Some local mist or fog may result from the temperature differentials between the surrounding air and the lagoons or effluent sprayed in the air. Since the areas are mainly screened from the winds, these conditions would be confined to the immediate area and would be of short duration.

Noise

During operation of the facility, little noise is expected to result. The pumps for the transfer or spray of the liquid wastes and for air in the aeration process would cause some noise. Since this equipment is usually confined in a building to protect it from weather, the noise is not expected to be audible outside the property lines. All other noises associated with the operation of the facility are expected to be negligible.

During construction some noise from blasting and construction equipment is expected. Such noises are unavoidable but will be kept to a minimum.

The development and increased activity in the area induced by the existence of the proposed facility may cause increased noise from the increased use of autos and snowmobiles. Much of the development would result regardless of whether this project is constructed. Once the treatment facilities are installed, some increase in development is unavoidable. This is discussed under "Secondary Impacts" below.

Aesthetics

In selecting the sites and designing the facilities, the impacts on vegetation and wildlife have been considered. Disruption of vegetation and habitats will be kept to a minimum. The facilities are located adjacent to areas already committed to development, Impacts on rare, endangered or unique species are considered negligible.

The facilities will not be located on any known areas of historical or archeological interest (see Chapter I).

The facilities will consist of lagoons and spray field which in many cases will be screened from view. Those portions which will be visible are generally pleasing in appearance.

There is some question whether sprinkler irrigation will have an adverse impact upon trees in the vicinity (see p. 110 of the Study). The planned phasing of construction will permit the option of experimenting at one site without committing the other sites to adverse conditions; or to the selection of sites free from timber. Timberless sites were included in the site alternatives considered for each area.

Secondary Impacts

The use of the snowmobile and winter sports activities has prompted seasonal residents to winterize their summer homes in the area and has attracted others to move to the area. There is considerable pressure for increased development. Of those platted subdivisions which have been developed, approximately 90% have been sold.

The County Planning Commission will not allow the platting of further subdivisions unless (1) engineering is completed, (2) covenants are completed, and (3) the State Department of Health has approved the sewage system. Most of the presently developed areas are located along rivers or lakes where the groundwater tables are high. The Health Department will not approve septic tanks or other individual home treatment systems in these areas. The developers are then forced to provide community type treatment systems for their developments or to locate their construction on land with lower groundwater tables. Most of such lands are controlled by the U.S. Forest Service or the Bureau of Land Management, however. If the developers should locate their subdivisions on lands away from present populated areas, this would create a sprawl into environmentally sensitive areas with serious adverse impacts on the vegetation, wildlife habitats, and degradation of waters from erosion and runoff. Since the County has no zoning or other similar land use regulations, there would be little, if any, control over this type of spread.

Since the developers are aware that approval of the proposed project appears imminent, they have been reluctant to construct treatment facilities for their subdivisions. As a result, new construction has been delayed. This delay combined with the present contamination of the waters has caused a decrease in property values.

Construction of the proposed treatment facilities will allow the developers to construct new homes which have been delayed because of the current ban on individual systems. There is every indication that such growth would have occurred with or without the project, but will occur more rapidly once the proposed facilities are installed. The rate of such growth will decrease as the needs caused by the delay actions are satisfied. Once the restrictions on development have been removed and the quality of both surface and underground waters improves, property values should increase. This will either partially or totally offset the cost of the proposed facilities borne by the residents.

The provision of sewage collection and treatment facilities resulting in improved water quality when combined with the decrease in development restrictions and increased property values will induce some population growth above the level which would occur without the project. The amount of this growth directly attributable to the project cannot be predicted since some growth would occur regardless of whether the project is undertaken. This growth will, in turn, result in increased air pollution from vehicle exhaust and heating units. This air pollution is not expected to reach a level where it would exceed standards. Some traffic congestion and increased background noise levels will result, but are not expected to cause any serious problems. The additional growth will be reflected in increased camping, hiking, and snowmobile activity. Such activity would tend to restrict the movements of wildlife, particularly the moose, trumpeter swans, and geese.

The use of snowmobiles has been recognized as a problem requiring action. The State of Idaho has formed a committee to study the problems of all "off road vehicles" (ORV's) and recommend necessary action to control their use. Executive Order 11644, dated February 9, 1972, requires Federal agencies to develop plans for the control of the use of ORV's on Federally controlled lands. Regulations and administrative procedures have been developed by the U.S. Forest Service. The implementation of these controls will partially mitigate the adverse impacts which these vehicles have on the wildlife in this area.

The provision of smaller treatment systems to serve the problem areas of greatest development, as opposed to a single regional system with connecting interceptors tends to limit growth to the areas previously committed to development rather than encouraging sprawl along interceptor routes or into environmentally sensitive areas, thus serving as a limited land use control. The concept of concentrating the facilities to areas which have demonstrated the potential for greatest development was not extended to providing a separate facility for each zone. This would not have been economically feasible.

Thus the recommended design provides, in effect, a regional system for each of the four sub-areas included in the proposed project. Such planning prevents a proliferation of small systems which provide less efficient treatment and are more difficult to monitor.

# CHAPTER IV

## ADVERSE IMPACTS WHICH CANNOT BE AVOIDED

### Construction Impacts

The construction activities will produce some noise and dust which cannot be avoided. Proper construction practices will reduce this to a minimum. There will be some disruption of traffic, particularly during the installation of the collection system which usually follows existing streets and roads, thus avoiding the acquisition of additional rights-of-way for the lines.

The lagoons and spray fields are to be located in areas which are sufficiently remote from existing development and screened from view so that the impacts of construction would pose only minor problems to the residents. These sites are sufficiently close to existing population centers that the wildlife in the service area will experience only minor interference.

Construction activities will remove some of the vegetative cover and some wind or water erosion will occur before such cover can be restored. The construction contractor will be required to exercise construction practices which will limit this erosion and will also be required to reseed and restore the vegetative cover as soon as possible. Some increased water turbidity will result from this erosion in the interim before the area can be reseeded.

Construction impacts are usually temporary in nature and can generally be corrected.

### Operation Impacts

Few adverse impacts directly related to the operation of the facilities are expected. Some pump noise will be generated but should not be audible beyond the property lines of the facilities.

Most of the facilities will not be visible to the public. Landscaping will be employed to shield the lagoons and spray fields from view. Pump houses and other units which cannot be concealed will be designed to conform to the surroundings as much as possible.

There is some question whether the spray irrigation system will have an adverse impact on trees adjacent to the site to the point where some of the trees are killed. Where possible, commensurate with other considerations, these spray fields will be located away from trees which could be affected.

Some local fog or mist from temperature differentials between the air and the sprays or lagoons will occur. Since these sites are, in most cases, protected from winds, this fog or mist will be confined to a small area. The effluent from the lagoons will be chlorinated prior to spraying, and the spray heads are designed to use large droplets, thus reducing to a minimum the potential for transmitting pathogens through aerosols.

Some insects may be encountered at times near the lagoons and spray fields. Proper operation using insecticides may effectively reduce or eliminate this problem. Some odors may occur at times of sudden increases in lagoon loading or at spring ice breakup before aerobic conditions can be restored. Since the systems employ aerated lagoons, the turbulence caused by the air bubbles should prevent ice from forming except in rare cases. The aeration facilities should also more quickly restore aerobic conditions at times of shock overloads. The aerated lagoon system was selected because of its ability to recover from sudden changes in loading.

The lagoons will be lined in accordance with the State design standards, thus effectively preventing percolation into groundwaters.

Secondary Impacts

There will be some population growth and development activity in the area which is directly related to the installation of the proposed facilities. This growth and development will be in addition to such activity which would occur regardless of whether the facilities are installed. The County has no effective land use controls with which to regulate the growth, but has formed the Fremont County Planning and Zoning Commission to develop such controls. A report on existing conditions is being prepared as part of this program. The grant award for the design and construction of the facilities described in Chapter III of this environmental statement will be conditioned upon the development of suitable land use controls.

In the meantime, the design of the proposed facilities provides within itself some controls. The location of separate facilities for each sub-area considered in lieu of a single regional plant with long connecting interceptors tends to limit development to the locality served by the individual collection system. The facilities are designed so that the capacity can be increased to meet the needs of growth which may occur in the future. This concept reduces the excess capacity provided in the initial installation. The immediate availability of excess capacity has in other locations provided an incentive to induce growth in an area. Such a tendency has largely been avoided in this case.

The growth which will be induced by these facilities has been limited to some extent by the design and requirements mentioned above. Such growth as will occur despite such control will cause some traffic congestion, noise, air pollution, land commitments and impacts upon vegetation and wildlife mentioned in the preceding chapter.

# CHAPTER V

## RELATIONSHIP BETWEEN LOCAL SHORT TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY

### Trade Offs

Construction Impacts versus Improved Water Quality: The environmental impacts from the construction and operation of the proposed project will be minor. Approximately four acres will be required for each lagoon site, not including spray fields, which will be near to already developed areas and not on agriculturally productive land. Some noise and dust will occur, as well as a minor amount of vegetation removal and animal life disruption. A small amount of blasting for the collection systems is expected. No odors are expected, with the possible exception of a two-week period during the spring breakup of any ice cover that may form. Designing a large droplet size spray system with chlorination will preclude transmission of airborne pathogens.

These minor impacts are contrasted with the improved water quality resulting from the project. Contamination of well and surface waters will be abated, both from bacteria and nutrients. This will eliminate the existing health hazard, protect the aquatic habitats, and improve the recreational capacity of the area.

Improved Water Quality versus Induced Growth: The improved water quality resulting from the project will be a benefit to the present population of the area, and to the aquatic life. It will also, however, remove the reasons for a ban on additional individual development and for the avoidance of commercial businesses due to reports of contaminated water. This will result in an increase both in permanent and tourist populations.

Indications are that commercial development of recreational facilities would occur regardless of the ban on septic tanks. Developers would construct their own facilities to comply with Health Department requirements. They have decided not to do so, however, since publicly owned facilities are planned. This will serve to confine the future development to the present areas of concentration. The secondary impacts and mitigative measures are discussed in more detail in Chapters III and IV of the statement.

Implementation versus Delay (Including No Action): The four subareas requiring treatment facilities have been assigned a priority and an anticipated construction schedule. Only the first, Mack's Inn - Island Park, is on the State priority list for this year (for a Step 2 grant). The projects cannot all be constructed at the same time simply because State and local funding is not available. The possibility

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exists that State and Federal funding will not be available at the same time as the proposed construction schedule. This could occur because (1) the State priority list may not rate the project high enough and/or (2) Federal funding under P.L. 92-500 expires by June 30, 1976, barring any additional Congressional action. Discussions with the State indicate that the projects are of such a nature as to warrent inclusion on the priority lists. Beyond next year, however, they cannot make a prediction. Also, indications are that additional Federal monies will be made available to meet the goals of P.L. 92-500.

In the event that the projects are not constructed within the proposed time frame, several results are possible. First, the delay would provide time to study the impacts of the initial phase on water quality, growth, and recreation. This would either justify or preclude the need for the other projects. Second, private developers may locate only in that area where municipal facilities exist. This would alter the population forecasts for all areas, and exaggerate the impacts of both the project and no-action areas. Third, developers may decide not to wait for municipal facilities and construct their own. This would place the burden of control on the Health Department and local land use controls.

Regardless, a commitment has been made to fund Mack's Inn - Island Park, and funding constraints force a phasing of the others. A demonstration of need for treatment facilities has been made, and a delay or no-action would continue to degrade the water quality and lower the property values. The proposed action allows flexibility while achieving the local goals.

# CHAPTER VI

## IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES TO THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

### Land Use

Construction of the treatment facilities will not greatly alter the land use in the immediate area. Approximately four acres will be required for each lagoon, and it will be confined to areas near development and where the land disposal will be compatible with existing uses. The proposed project does not commit the area to a single waste management system. Lagoons could be abandoned, the land reclaimed, and a regional system developed at a future date.

The service areas will likely change from a resort-type area to one of a more congested urban nature. This is expected to occur even if the projects are not built. More winter tourism is anticipated as a result of the projects, as well as an increase in commercial development. Also, industrial activities are possible, although not envisioned at this time. Real estate values are expected to increase with the elimination of the contaminated water conditions.

### Water Use

Recreational water activities, such as swimming and fishing, are expected to increase with the implementation of the proposed action. This is a secondary impact, as it will result from the improvement of the conditions responsible for the development of the area. Drinking water quality will be improved, which is a further stimulant to growth. The facilities will not constitute a consumptive use of water inasmuch as the water will be returned to the ground through land disposal.

# CHAPTER VII

# OUTSIDE PARTICIPATION

## Public Hearings

Public hearings and presentations have been held at various stages of the planning process. These began with the November 1971 presentation of the Comprehensive Sewer and Water Plan, and continued through July 1975 with discussions on the attached North Fremont County Sewer Facilities Planning Study. Generally, the meetings have resulted in agreement with the assessment of the problem and with the proposed course of action. Very little opposition has been evident, although some concern over cost and service area boundaries has been expressed. A summary of public participation through April 1975 is found on pages 120 and 121 of the applicant's assessment. Reports of the public hearings of July 2, 1975, and July 19, 1975, are in Appendix F of the Study. The results of the hearings indicate agreement that a pollution problem existed and that correction was necessary.

## Citizen Input

Letters have been received by the Fremont County Commission displaying support for the proposed project. Also, letters are on file with the State Health Office from citizens in the project area complaining of contaminated wells and intestinal problems resulting from fecal contamination of drinking water.

## Other Federal, State and Local Agencies

Comments have been received from the U.S. Forest Service, the U.S. Geological Survey, the Idaho Fish and Game, and the Rick's College Biology Department. These agencies have all indicated a serious problem in the surface and groundwaters resulting from human contamination. In addition, the Idaho State Health Department is denying permits for individual disposal systems as a result of the problem.

The U.S. Forest Service is also cooperating with the project, both financially and technically. This cooperation is explained in more detail in Chapter I of this statement.

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# CHAPTER VIII

## COMMENTS TO THE DRAFT ENVIRONMENTAL IMPACT STATEMENT AND RESPONSES

This section contains letters of comment from individuals and groups to the draft EIS on North Fremont County (Island Park Area) Wastewater Facilities. These letters have been printed as received by EPA, Region X. Wherever a response is required of EPA to a letter, a response page follows that letter.

The following table is a listing of the comment letters received, the page in this chapter on which they can be found, and a general category listing of their contents. Comment categories are shown in an attempt to indicate those aspects of the proposed action about which the commentors were most interested and concerned. This may serve to direct the interested reader to those sections of the document which he may wish to restudy.

The Environmental Protection Agency, Region X wishes to express its appreciation to all commenting agencies, groups and individuals for the time and effort spent in reviewing the draft EIS. All comments were presented to the Regional Administrator and were considered by him in EPA's decision-making process.

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## COMMENTS RECEIVED

| Date Rec'd | From | EIS Page No. | Gen. Tone | POP. PROJECTION-GROWTH | EXCESS CAPACITY | LAND USE, PLANNING | REGIONALIZATION | COSTS | WATER QUALITY | FISHERIES | ALTERNATIVES | CONSTRUCTION IMPACTS | WILDLIFE | MITIGATIVE MEASURES | SLUDGE DISPOSAL | AIR QUALITY | SECONDARY IMPACTS | SERVICE AREAS | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10-06 | Rex T. Moore | 39 | crit. | | | | | | | | | XX | | | | | | XX | |
| 10-14 | Corps of Engineers | 41 | crit. | | | | | | XX | | | | | | | | | | spray irrigat. |
| 10-15 | Richard G. Hackworth | 46 | crit. | | | | | | XX | | | XX | | | | | | XX | |
| 10-30 | League of Women Voters | 50 | crit. | | | | XX | | | | XX | | XX | | | | | | |
| 11-03 | Idaho Dept. of Fish & Game | 54 | support. | | | | | | XX | XX | | | | | | | | | |
| 11-03 | U.S. Forest Service | 57 | support. | | | | | | | | XX | | | | | | | | siting |
| 11-04 | U.S. Department of H.U.D. | 60 | support. | | | XX | | | | | | | | | | | | | |
| 11-04 | ID Dept. of Health & Welfare | 62 | support. | XX | | XX | | | | | | | | | | | XX | | |
| | CLOSE OF COMMENT PERIOD | | | | | | | | | | | | | | | | | | |
| 11-12 | EPA Headquarters | 66 | support. | | | | | | | | | | XX | | | | | | historic/cult. |
| 11-13 | ID State Historical Society | 69 | crit. | | | | | | | | | | | | | | | | historic/cult. |
| 11-14 | U.S. Dept. of the Interior | 73 | crit. | | | XX | | | XX | XX | XX | | XX | | | | XX | | historic site |
| 11-17 | Advisory Council on Historic Preservation | 85 | crit. | | | | | | | | | | | | | | | | historic/cult. |
| 11-24 | Mr. and Mrs. W. H. Shiflett | 89 | crit. | | | | | | XX | | | XX | | | | | | XX | |
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Project # C116186-01 Island Park
Teton County
Idaho

Dear Sirs:

I am writing in regards to the sewer that is being planned in the Egin Creek Area of Island Park. We are in the Pack addition.

The residents of the Environmental Protection Agency does not consider these condominiums the state have chosen as pollution above as below this area.

RECEIVED
OCT 6 1975
EPA-EIS

I do encourage a sewer but we will do to the area is recommendation, because of the rocky soil of the area.

We want to go on record as objecting to it

Mr & Mrs Ray F. Moore
391 Wayne Ave
Pocatello, Idaho 83201

Project # C-16-0186-01

39

Reproduced from best available copy.

Response to Rex Moore Letter

Sewer service is not planned to the Yale Creek (Pack Addition) portion of the Island Park Bill's Island -- Yale Creek sub-area. During the initial project phases, service would only be provided for the Shotgun Summer Homesite development in Zone 4. Interceptor and force mains would, however, be sized to handle flows from Yale Creek so that the area could be served if warranted in the future.

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DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
BLDG. 602, CITY-COUNTY AIRPORT
WALLA WALLA, WASHINGTON 99362

NPWEN-PL

9 October 1975

Mr. Richard R. Thiel, Chief
Environmental Impact Section, M/S 443
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

Dear Mr. Thiel:

As requested by the form letter 10A from Clifford V. Smith, Jr., Ph.D., dated 17 September 1975, we have reviewed the Draft Environmental Impact Statement on the North Fremont County (Island Park Area), Idaho, Wastewater Facilities, EPA Project C-160186-01.

In general, it appears that the proposed wastewater management system will not have any effect on navigation or flood control activities of the Corps of Engineers. It should be noted, however, that detailed siting of facilities should be done in such a manner as to avoid the possibility of flood hazards or flood damage. At the time you are preparing detailed plans for the sewage facilities, we will be pleased to provide more information and/or comments regarding the flood plain and flood hazard potential as these relate to specific facility design elevations. 1

In addition, you should be aware that construction in and across the streams of the area may be subject to a permit from the Corps of Engineers, under the requirements of Section 404 of the Federal Water Pollution Control Act. Prior to construction, the County should check with us again concerning the possible permit requirements. You may wish to forward copies of the inclosed booklets to the County. The names of those Corps' offices and people to contact in Walla Walla District for more information regarding permits are listed in the back of the booklet.

In review of the water quality aspects of the Draft Statement, we note several specific comments. These water quality comments are shown on the attached sheet for your consideration.

RECEIVED
OCT 14 1975
EPA-EIS

NPWEN-PL
Mr. Richard R. Thiel

9 October 1975

Thank you for the opportunity of reviewing and commenting on the Draft Environmental Impact Statement for this project.

Sincerely yours,

W. E. SIVLEY
Chief, Engineering Division

2 Incl
1. Comments
2. Sec 404 Booklet (trip)

## COMMENTS

1. Page 6: In the entire report, there was no delineation of the phosphorus deposits located in the vicinity. There was no correlation of phosphorus levels to population centers; therefore, it seems that no conclusion can be made concerning the population center contribution of nutrients to the surface water systems in the area.

2. Page 7: One would expect higher concentrations of phosphorus in the shallow wells (see page 64 of the A/E's report). The wells tested all show excess turbidity, a situation which normally would not occur in a domestic well. One would expect some outside source of the turbidity and, logically, would expect an increase in phosphorus. Chloride, a good chemical indicator of fecal pollution, does indicate (pp. 64-68 of A/E's report) that some of the wells may be receiving human waste.

3. Page 7: Spray irrigation water applied to the land will enter the groundwater along with some nutrients, depending on the treatment rates. There is no information presented to show that the soil conditions present in the proposed spray areas will be able to take the amount of water expected to be applied. Further, assuming the sprayed area will be "harvested" of its crop every seven to eight years (page 115 of A/E's report), there is no mention of the problem of solids buildup on the individual plants as the spray is applied, as occurs in a spray type of treatment system. If a "Christmas tree" operation is to be used, the solids question will be very important if there is to be a commercial market for the trees.

4. Page 21: The word "efficiency" is misspelled.

5. Page 23: Considering the relatively low populations involved in the area and the relatively "high phosphorus content of the geological formations", there is question that there will be a significant increase in the water quality of the two lakes. There will still be a threshold value of phosphorus to cause algal blooms, due to the geologic formations.

6. Page 24: Spray effluent, although chlorinated, will still carry virus. Considering the possible high suspended solids of the lagoon effluent, unless sufficient contact time is allowed with the chlorine bacteria will not be destroyed. There are documented cases where solids interfere with chlorination. If mists occur, there is every possibility that disease organisms can be carried out of the immediate spray area unless the solids concentration is controlled.

Response to Department of the Army (Corps of Engineers) Letter

Following this response is a copy of EPA's letter to Fremont County forwarding the Corps' suggestions on Flood control and construction permits.

Its interesting to note that the Department of Housing and Urban Development in their letter of comments indicates that Fremont County is not identified under their flood insurance program as having any special flood hazards. They state tnat, therefore, there is no need for land use controls with respect to potential flooding.

In response to numbered comments:

1. We agree. The planning study on page 62 states, "Attempts to associate total phosphorus load on the surface water courses with major population centers in the study area are inconclusive in all areas except possibly Henry's Lake." Also, "Nitrate analyses provide no conclusive information concerning the source and extent of water quality problems." However, shallow well data does provide some support for the conclusion that the population centers are contributing phosphorus to the surface waters.

2. Again, we agree. There is no apparent conclusive explanation for this phenomenon. The turbidity may well have been due to the sampling technique. However, a substantial number, rather than "some" of the wells, do appear to be receiving human wastes, as do surface water courses in many locations.

3. Although not specifically presented in the planning study, soil samples were taken at all of the alternative spray field sites considered. With a few exceptions, all of these samples indicate the subsurface soils to be light, friable, well-drained material with little or no clay being present. Based on informal discussions with the USDA Agricultural Research Service, Kimberly Station, this would suggest that there should be few, if any, problems encountered with compacting soils or solids build-up. These soils should be able to accommodate the phosphates, and the surface vegetative cover should accommodate the nitrate. However, careful maintenance, operation, and testing will be required to help insure that this problem does not occur.

4. This misspelling has been corrected.

5. Again, we agree; however, recent history would indicate in certain areas eutrophication is reaching advanced stages. Meanwhile, there has been no apparent increase in the contribution of phosphorus from natural sources. Although the removal of nutrients from surface waters due to septic tanks may not significantly increase the water quality of lakes, it should prevent this accelerating rate of eutrophication.

6. Aerosol transmission of viruses has not been shown to be a health hazard, based on the evaluation of existing spray disposal projects across the country. Following the aeration and settling in ponds, in the vicinity of 20-60 milligrams/liter of suspended solids would be expected. Although this will require an increased dosage of chlorine for proper disinfection, it should not be significant in view of the relative small size of these treatment systems. Winds are not a particular problem in this area and there are no habitations located close to the sprayfield sites. On the other hand, discharges of viruses to surface courses for a treatment and discharge process could present more of a problem in view of the heavy recreational use that now exists for these waters. Use of the larger droplet size should preclude significant aerosol dispersion.

As a point of interest, aerated lagoons are used for domestic waste treatment at the following Idaho communities: Richfield, Inkom, Lava Hot Springs, Rigby, Page, Smelterville, Kootenai-Ponderay S.D., Bonners Ferry, Glenns Ferry, Horseshoe Bend, Marsing, and McCall. Although Wendell is the only Idaho community now utilizing spray irrigation for effluent disposal, this technique is used by four industries: Burley Processing at Aberdeen, Non-Parallel Corp. at Blackfoot, Idaho Supreme at Firth, and Rogers Bros. in Rexburg. Informal discussions with State Health personnel suggest no known aerosol dispersion problems caused by these plants, and no reported cases of virus infections attributed to them.

RECEIVED
OCT 14 1975
EPA R10

October 11, 1975

U. S. Environment
Region X
1200 Sixth Ave.
Seattle, Washington 98101

**Reference:**
Project - No C-160186-01
Island Park Area
North Fremont County
Idaho

Dear Sirs:

I am a property owner concerned with good and necessary ecological changes necessary to the preservation or our environment. Therefor I am calling your attention to a very unnecessary proposal that will cause severe and unwarranted damage to esthetic qualities in a particular area at Island Park Idaho. My reference is to a sewage proposal project for the general area of Island Park Idaho as proposed by the Engineering Firm of Forsgren and Perkins.

Facts:

1. There undoubtedly is Contamination of streams and lakes from human fecal matter in some parts of Island Park, Idaho.
2. The Forsgren Perkins report inferred that they made no attempt to determine who's properties are dumping sewage into the rivers and lakes.
3. The Forsgren Perkins report does not indicate any effort on their part to evaluate the quality or performance of private disposal systems along the rivers and lakes.
4. Some private disposal systems consist of a couple of 55 gallon drums. These are contrary to modern minimum standards.
5. Some private sewers dump directly into the streams. Some of these openings are hidden under boat docks.
6. The Forsgren Perkins report has excluded some property from the sophisticated proposed system. These exclusions pertain to properties where lot sizes are comparative to a postal stamp in size as related to the larger acreages which have been included in the proposed system. Also these exclusions are much closer to the streams and on much higher water tables than property that have been included in the proposal.

7. Some of the property owners who have been included for the disposal system can't help but think they are being used by developers to help pull the developers out of a bind they have been caught up in because the ground they want to develop is broken down to very small parcels and sitting on high water tables with poor percolation results.
8. The Forsgren Perkins report indicates adverses to environment will be minor.

Reasons for My opposition:

1. Zone #4 in the I.P.Bill's Island Park - Yale Creek sub area encompasses too large an area.
2. The Yale Creek sub area contains 622 acres which is broken down to 422 lots. Out of these 422 lots the following facts are evident.
   a. One owner purchased and fenced approximately 38 acres for his home and privacy and not to re-sell.
   b. Many owners purchases adjacent lots to their home site strictly for their own privacy and not to re-sell.
   c. If people mentioned in a and b above <u>had not</u> purchased additional lots for their privacy, the average lot size is still over one acre. Because of a and b situation the ground per cabin is well over one acre in size.
   d. Most all lots were plotted as one or two acre lots by the developer.
   e. Well in excess of 90% of the ground involved (Yale Creek division) is of a very rocky nature with huge boulders near and on the surface, dense with lodge pole pine, fir trees, and beautiful forrest foilage. The area is characterized by steep elevation differences.
   f. Mechanical earth moving equipment has to be supplimented with blasting during construction of footings for cabins, power lines and disposal systems.
   g. Culinary wells in this area average a depth down to first water well in excess of <u>100 feet</u>. Many wells are over 250 feet in depth.
   h. We are concerned with the effect blasting for the collection line on the proposed sewer system will have on our wells. Also the destruction on the surface environment.
   i. The Yale Creek area is a recent development (less than 10 yrs old) and during this period the State Health department has diligently inspected all of our disposal systems.
   j. Page 53 CF) of the Forsgren Perkins report states "bacteria counts observed on Yale - Hotel Creek were of non-human origin. There are other references in the report which tend to discount a need for the proposed system in this area.
3. If the report sees fit to exclude lots or sections in other areas that are close to the river and which are less than 1/3 acre in size and are sitting on higher water tables and the development transpired prior to the more stringent sewage disposal requirements for private systems---then surely--- our Yale Creek area certainly qualifies for the SAME CONSIDERATION.

Conclusion:

I have studied the Forgren Report, am aquainted with the various development proposals relative to developers, have seen sewage dumping in the river, and I am of the opinion that there is no justification for including the Yale Creek sub-division in on the proposed Island Park Sewage system.

Since E.P.A. funds are involved as well as E.P.A. expertise I request that you look into the Yale Creek area. This area is scheduled for the Sewage disposal system with a starting date of 1978.

Sincerely,

Richard G. Hackworth

Richard G. Hackworth
247 N. 12th
Pocatello, Ida. 83201

RGH/dh
cc file

Response to Richard G. Hackworth Letter

Although Figure 20 of the Planning Study shows an interceptor serving Shotgun Village Estate in zone 4, the only service planned initially for the first phase of construction would be to the Shotgun Summer Homesite. Capacity will be provided, however, for future service to the Yale Creek Area at such time as it becomes warranted. Justification for future service to the rest of zone 4 is contained on page 78 of the planning study.

Fremont County's consultant has indicated that they did not detect any outfalls to water courses during the study. If any are known, they should be reported to the County so that they can be corrected as soon as possible, since they are in violation of State Water Quality Standards, unless a variance is granted.

# LEAGUE OF WOMEN VOTERS OF IDAHO

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329 South Phillippi
Boise, Idaho 83705
October 27, 1975

Mr. Richard R. Thiel, Chief
Environmental Impact Section, M/S 443
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

RECEIVED
OCT 30 1975
EPA-FIS

Dear Mr. Thiel,

Having received the Draft Environmental Impact Statement on the North Fremont County-Island Park Area Wastewater Facilities (EPA Project No. C-160186-01) I would like to submit the following comments on behalf of the League of Women Voters of Idaho.

The Draft Statement certainly serves to reinforce the gravity of a situation of which we were already most aware - the water pollution problems existing in the area under consideration. And even a reader already familiar with the environmental values is impressed anew with the obviously lovely and unique qualities, the diversity of wildlife and habitat, and the high esthetic values which are present. The list of wildlife species present sounds like a naturalist's dream world. (Other respondents will surely have pointed to the errors in listing species as "threatened" which are in fact "endangered".) Thus we find a very basic conflict between environmental goals 3 and 4 as listed on page 5 of the Impact Statement. League members doubt that the preservation and even enhancement of fish and wildlife and their habitats is compatible with the development of the recreational capacity of Island Park without careful attention to a concept which we have always found very relevant indeed - that of carrying capacity. 1 2

My reading of this long and complex document has not served to instill confidence that the environmental values have received a full measure of consideration in the selection of a method to solve a very real and pressing problem. Page 62 discusses regional systems in preference to smaller treatment systems for areas of most concentrated development. And although we can understand the difficulty of monitoring many small systems and even that somewhat less efficient treatment might be provided, we do wonder about the statement that development will tend to be confined to those areas having a regional system. May we suggest that without proper countywide planning and zoning, development is going to continue wherever an enterprising developer believes it is economically feasible. In reading the comments given at the hearings, in fact, the impression is gained that even now development would continue were it not for the moratorium imposed because of the water pollution problems. Another area in which we have not found sufficient information to justify the regional system is in relation to the fluctuations in population. The Island Park population figures, with 130 permanent residents and 6,800 or better in the summer, are a case in point. Might not as efficient a community system as possible 3 4

be more flexible for this great fluctuation in population? In short, we find ourselves wanting answers to many questions about smaller community systems, leading us to believe that the proposed regional systems have been a foregone conclusion from the beginning. 4

To speak more specifically to a few problems under the regional systems as proposed, when it comes to the alternate sites selected for lagoons and sprinkler systems there is no information to justify why particular sites were chosen, nor that they are indeed the best sites, particularly from an environmental point of view. We noted that such sites tend to be located on public land while the development which has caused the problem is for the most part on private land. We agree with Supervisor Olson of the Targee Forest and his comments concerning this matter at the Island Park public hearing. Other sites than Forest Land should surely be considered for the sprinkler systems, and we would also particularly recommend consideration of the golf course as a feasible site. There seems to be evidence that damage can be caused to trees, thus making open areas the better choice. And we have read that evidence also indicates a tendancy to earth connaction with a larger droplet, thus making a finer spray more advisable. 5

Of course, the crux of the problem is how a contemplated sewerage system aids and abets land use planning, a subject which I, as Environmental Quality chairman for Idaho's League of Women Voters, am not competent to tackle, except as it impacts on environmental values. And since it is the quality of the environment which has drawn people to this area one cannot help but wonder how soon added development will destroy those very values which have made this land desirable. League members thus urge that in making decisions for this lovely area environmental values be given full consideration. We consider such a course practical as well as necessary, for without the high quality environment the dollar values will rapidly diminish.

Sincerely,

Doli Obee

Doli Obee
Environmental Quality Chairman

Response to League of Women Voters Letter

1. See page 2 of Department of Interior letter and EPA's response.

2. Agreed, the definitions of "preservation" and "development" do suggest a dichotomy. The concept of carrying capacity of the resource is key to the future management of the area. The article, "Carrying Capacity: Maintaining Outdoor Recreation Quality," by Lime and Starkey (see Bibliography) contains a good discussion of this concept. Carrying capacity is a dynamic concept capable of manipulation by the manager, since it has three basic components: (1) management objectives, (2) visitor attitudes, and (3) recreational impact on physical resources. The provision of sewer service is not the determinant of the future quality of the recreational experience, but it will place greater demands upon the area's resource managers as they evaluate carrying capacity. Based on the demonstrated performance of state and federal land use management agencies as compared with private developers and local units of government, there is every reason to believe that carrying capacity will receive careful consideration in the future comprehensive planning and zoning management for the Island Park area, due to the preponderance of land under state and Federal control. As discussed in the Preface of this final Environmental Impact Statement, EPA has attempted to encourage development of sound land use planning and zoning techniques by use of a grant condition which will be carefully monitored. The management by objectives set for the Island Park Area by those participating in land use management will be the controlling factor in the determination of its carrying capacity.

3. The concept or technique of restricting or concentrating development through provision of sewerage service to specific areas, when coupled with comprehensive land use planning, seems to be gaining wide acceptance. We agree that without land use controls or without sewerage facilities, development will still occur, and in a less desirable fashion.

4. Four separate localized systems as compared with one large regional plant for the entire area has many advantages: cost, implementation, flexibility and lesser environmental impact. We do not feel that smaller community treatment plants would be practical or acceptable, however, especially in accommodating load fluctuations. Septic tanks with few exceptions are not suitable because of soils limitations and high groundwater conditions (see pp. 10-11). Package plants do not accommodate flow fluctuations and require careful maintenance and operation, and probably would constantly be in violation of their discharge permit effluent limitations. Any system of several small plants would present major maintenance operation and management problems. Aerated lagoons appear to be the best solution: cost-effective, easily maintained and operated, and capable of handling wide fluctuations in loading.

5. Selection of lagoon and sprayfield sites is discussed in the Study on pp. 107-110. See also EPA's response to p. 4 of the Department of Interior letter, especially the Table of Site Considerations. As stated on p. 107, the primary considerations in site selection were: (1) cost of the required transmission lines, and (2) environmental impact for each sub-area. Other sites were studied and screened out, and do not appear in the report. Sprinkling of effluent on the Island Park golf course is not being given serious consideration. Twelve sites, then, were studied and screened for final selection of four, which is considered a reasonable range.

We share your concerns over use of National Forest lands for utility purposes when private lands are available. However, when the wastes are generated principally from activities on these lands, the Forest Service should do (and indeed has done) its share in finding suitable treatment and disposal sites. In any case, EPA's construction grant regulations require a cost-effective evaluation of alternatives, aimed at determining which treatment system will result in the minimum total resources costs over time. The alternative selected must be the most cost-effective without overriding non-monetary costs. This provides, then, a basis for careful evaluation of the comparative "cost" of using Forest Service lands when private lands appear unavailable or pronibitively expensive. Private land may be expensive to the point of its purchase possibly resulting in a severe economic impact on project users. Private land costs from $400-600/acre for sagebrush land and $600-800/acre for forested land. This means that a 50 acre site could cost from $20,000-40,000, which could have a significant impact on the cost-effectiveness comparison of alternatives as well as cost to users. Land costs for some desirable sites have been reported as high as $5,000 to 10,000/acre, which is beyond the realm of financial feasibility. State and Federal governments paying 90% of eligible costs have a certain responsibility to keep project costs low in order to spread limited public funds as far as possible. Where the bulk of the wastes is from private facilities, first consideration should be given to disposal on private lands. Similarly, in areas where a large or even predominant share of the wastes is from public campground or trailer facilities, we see no reason why treatment and disposal on public lands should not be considered. Please note in the Preface to this EIS that a grant condition, calling for a reevaluation of private vs. public land for treatment and disposal sites, is recommended.

The effect of land disposal on lodgepole pine growth can be evaluated during phase one of the project, before other final sprayfield sites are selected. Problems of soil compaction due to large droplet size are not anticipated, based on informal discussions with the Kimberly, Idaho station of the USDA Agricultural Research Service. Soils in the areas under consideration are light, friable, usually granular, well-drained, and contain a minimum of clays. Careful operation and monitoring should keep this problem under control.

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# STATE OF IDAHO

## DEPARTMENT OF FISH AND GAME

REGION 6
1515 LINCOLN ROAD
IDAHO FALLS, IDAHO 83401

October 31, 1975

Mr. Richard R. Thiel, Chief
Environmental Impact Section, M/S 443
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

Dear Mr. Thiel:

Re: EPA Project No. C-160186-01
DRAFT ENVIRONMENTAL IMPACT STATEMENT,
N. FREMONT CO., ISLAND PARK AREA,
WASTEWATER FACILITIES

This Department welcomes the opportunity to comment on the wastewater control plan for Island Park, North Fremont County, Idaho.

From our standpoint, the selected plan (spray irrigation to achieve secondary treatment plus nutrient removal) is the only acceptable plan formulated. The plan would reduce nutrient loading problems at Henry's Lake and Island Park Reservoir. If the plan is not adopted, the projected 6,000 to 20,000 (people at one time) 20-year population increase in the drainage above Island Park Reservoir will have a disastrous effect upon the Henry's Lake and Island Park Reservoir fisheries, where nutrient loading is already critical.

In the past, localized trout dieoffs have occurred in Henry's Lake in late winter because trout were forced by anaerobic conditions throughout most of the lake to over-concentrate in warmer spring waters. Nutrients from septic tank fields are suspected to have increased the heavy blooms of blue-green algae that caused the oxygen deficiencies. Substitution of spray irrigation for the septic tanks should reduce phosphorous and ammonia nitrogen to more-tolerable limits and make wintering conditions better for fish. Further, spray irrigation could enhance natural propagation of cutthroat trout in streams such as Targhee, Howard, Timber, and Duck Creeks where surface diversion occurs during the period when trout fry are migrating lakeward provided the spray fields are located so as to reduce the needs from surface diversion. 1

We agree that water monitoring below Island Park and Henry's Lake Dams is needed to assess such factors as dissolved oxygen, chemistry, temperature and algal turbidity.

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EQUAL OPPORTUNITY EMPLOYER

On page 19, first paragraph of the planning study, the capacity of Island Park Reservoir should be 127,300 acre feet rather than 27,300.

Reducing the public health hazard in Island Park will put greater demands upon the stream and lake fisheries because of greater public usage. This will require more intensive management on our part; however, we feel that the plan is necessary and will have an overall beneficial effect upon the important fisheries of the Island Park area.

Sincerely,

IDAHO DEPARTMENT OF FISH AND GAME
Joseph C. Greenley, Director

Tom Reinecker

Tom Reinecker, Supervisor
Region 6

TR:jl

cc: Bureau of Environmental
Services
Bureau of Fisheries

Response to Idaho Department of Fish and Game Letter

1. This benefit will accrue only if sprayfield site no. 3 for the Henry's Lake sub-area is utilized, permitting a substitution of treated effluent for diversion from the surface streams for irrigation purposes.

57

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Targhee NF
St.Anthony, Idaho 83445

October 31, 1975

8410

Richard R. Thiel, Chief
Environmental Impact Section, M/S 443
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Wa. 98101

Dear Mr. Thiel:

This letter is in response to Mr. Smith's correspondence of September 22, 1975 which enclosed a draft EIS statement for North Fremont County, Idaho Wastewater Facilities, EPA Project C-160186-01.

We have the following comments and suggestions which should be addressed in the final EIS.

We, of the Targhee National Forest, concur that corrective action for the sub-areas listed is needed and that the corrective action should entail solutions to water pollution on area-wide and all inclusive basis as proposed. We feel the benefits to be derived outweigh the impacts.

We concur that the proposed method of treatment is the best method based on todays technology in sewage treatment. If technology develops s superior treatment method for these areas it should be employed at the appropriate time and place.

We specifically agree with the proposed corrective action for the Mack's Inn-Island Park Lodge sub-area including the general location of the proposed treatment facilities. We have jointly, with Fremont County and it's contractors, worked toward a corrective action that best meets Federal, State, and local objectives in pollution abatement. This proposal is essential to treatment of wastes from Federal facilities.

We do not concur with the selected alternative facility sites for the I.P. Bills Island-Yale Creek or Last Chance-Ponds Lodge sub-areas. We do not believe the studies and analysis made for these two sub-areas has been extensive enough to justify use of Forest Service land. Many people look to the Forest Service to keep National Forest lands free of facility development that tends to expand and enhance development on privately owned lands. Community planning adjacent to the National Forest should incorporate where practicable within private lands, their requirements for water and wastewater treatment, utilities, access roads and other community needs. 1

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8410 (P-2)

We feel these two sub-areas have ample opportunity to plan their needed facilities within private land. We recognize County control through comprehensive planning, zoning, and ordinances are presently lacking, but believe such control is essential to accomplish community planning that incorporates the essentials within the limits of their development. 2

We do not want our support of the corrective action proposed for the four sub-areas to be misconstrued as a Forest Service endorsement for expanded development in North Fremont County. We do support corrective action for the problems that now exist.

We feel, for the scope of this proposal, adequate inventory, study, and evaluation of effects on wildlife, fish, vegetation and water and air resources has been presented. We base this judgment on the findings of the National Forest Interdiscipline team of specialists engaged in studying and evaluating this same part of Fremont County. However, more study and evaluation of social-economic effects must be presented prior to Forest Service consideration in support of development expansion.

We suggest that some inaccuracies noted be reworded as follows:

Page 14, Land Use, first paragraph, next to last sentence is not accurate. The area has not been identified as a National Geothermal Resource Area. Island Park does contain a small KGRA (Known Geothermal Area) immediately adjacent to the West Boundary of Yellowstone National Park.

Page 16, Other Agency Programs or Projects

Our retention lagoon serves only the Ranger Station. (Page 6- Existing Treatment Facilities needs this correction also).

We would consider abandoning our lagoon if another system was developed. All Forest Service wastes in Island Park, except those at the Ranger Station, are hauled to State approved treatment facilities by contract, however, the Forest Service does not operate a trailer waste holding site. 3

George A. Olson

GEORGE A. Olson
Forest Supervisor

Response to USDA Forest Service letter

1. We disagree with the concept of not using public lands for treatment and sprayfield sites. See comment no. 5 to League of Women Voters letter for discussion.

   Site no. 3 in the I.P. Bills Island -- Yale Creek sub-area is located on Bureau of Land Management ground. The other two sites are located on Forest Service ground. In the eastern half of the sub-area there don't appear to be any suitable sites that are not located on Forest Service property.

   Site no. 1 is preferred because it has the most favorable location in respect to the proposed initial service area, and, therefore, would be the most cost-effective. Much of that initial load will be from Forest Service campgrounds.

   For the Last Chance -- Ponds Lodge sub-area there do not appear to be any feasible sites for treatment and sprayfields that are not located on Forest Service land. Again, much of the waste loading will be coming from Forest Service campgrounds. For these reasons, and especially in view of the high cost associated with the purchase of private lands for sprayfield sites, there appears to be no choice but to use public lands for treatment and sprayfield sites. However, where recreation is competing with treatment or sprayfields for use of the sites, the recreation use should be considered of higher priority.

   The County's consultants are continuing the study of site availability. Final selection will have to meet with Forest Service approval.

2. Recognizing the lack of County land use control, comprehensive planning, and zoning, we have developed the grant condition discussed in the Preface to this EIS. Hopefully, this will assure that necessary land use controls are developed and that land use management agencies will have participation in the management objectives established by the County for these recreation lands.

60

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
ARCADE PLAZA BUILDING, 1321 SECOND AVENUE
SEATTLE, WASHINGTON 98101

October 30, 1975

REGION X

Office of Community
Planning & Development

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NOV 0 4 1975
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IN REPLY REFER TO:
10D

Dr. Clifford V. Smith, Jr.
Regional Administrator
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Wa 98101

Dear Dr. Smith:

Subject: Draft Environmental Impact Statement
North Fremont County, Idaho
Wastewater Facilities

We have reviewed the statement dated August 29, 1975.

The proposed project is the construction of sewerage facilities serving the Island Park Area in Fremont County, Idaho.

Most of the housing activities in the area are of the recreational type, and there have been no subdivisions approved by HUD in the area. Your statement indicates that there is no comprehensive plan at this time, but a program is under way. We assume that this proposed project has no apparent conflict with the program, and is consistent with the purposes established in the County Subdivision Resolution. 1

We find that Fremont County is not identified under our Flood Insurance Program as having any areas with special flood hazards; thus there is no need for land use controls with respect to potential flooding.

We see no significant adverse impacts in our areas of concern, thus have no objections to the proposed project.

Thanks for the opportunity to comment.

Sincerely,

Robert C. Scalia
Assistant Regional Administrator

cc: CEQ (5)

Response to Department of Housing and Urban Development Letter

1. The proposed project has no apparent conflicts with the purposes established by the County Subdivision Resolution.

# STATE OF IDAHO

DEPARTMENT OF HEALTH AND WELFARE

STATEHOUSE
BOISE, IDAHO 83720

DIVISION OF ENVIRONMENT
November 3, 1975

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NOV 0 4 1975
EPA EIS

Mr. Richard R. Thiel, Chief
Environmental Impact Section, M/S 443
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

RE: Draft Environmental Impact Statement on North Fremont County (Island Park Area), Idaho Wastewater Facilities, EPA Project C-160186-01.

Dear Mr. Thiel:

As you know our Division is very concerned about the water quality in the North Fremont County area and therefore we welcome the opportunity to review the draft environmental impact statement. Although the document appears to be excellently done, there are a few specific areas we believe need to be revised for the final EIS.

General Comments

1. Though the impact statement does address the population projections in detail, it appears the 1994 projections are extremely optimistic. These projections will be influenced extensively by national, state, and local economics. It would appear increased growth at a rapid rate might occur in the first 3 or 4 years of proposed project completion and then level off to a more reasonable standard growth rate level. Therefore, although design capacity for the proposed facilities may be for the optimistic population projection, the proposed construction of a facility should be phased to include additions to care for the future population.

2. It is our belief that the document has skirted the major issue of accelerated growth due to the proposed project and its potential consequences. The statement fails to sufficiently consider a number of the secondary effects of the proposed action. One such impact can be seen in Figure 2 of the report. This shows that a great deal of the land surrounding critical shoreline is in private ownership and therefore subject to accelerated development with the construction of sewage treatment facilities. Development of these areas could result in the upset of the natural ecological balance. Therefore, the final document should address the secondary impacts of induced growth in much greater detail than that given in the draft.

To: Richard P. Thiel, Chief
December 3, 1975
Page Two

We must emphasize that to be completely effective the project should be constructed in conjunction with a comprehensive land use plan for the area. This would serve to limit growth and development in the area and insure the project achieves its objectives of reducing water pollution.

Specific Comments

1. Page 3, Paragraph 4: This paragraph indicates that the corporate boundaries of Island Park extend to Mack's Inn in the north. This is incorrect because the boundary really extends to Valley View Ranch some eight (8) miles north of Mack's Inn.

2. Facilities Plan, Figure 2: The names of the subareas should be shown directly on the map thereby making the report easier to follow.

3. Facilities Plan, Page 100, Section (i): In an area such as North Fremont County, it is doubtful that an aerated lagoon system will be "aesthetically appealing." Therefore, this consideration should be removed from the list.

Our comments on this draft statement have been classified LO-2, LO (Lack of Objections) 2 (Insufficient Information), corresponding to the EPA's rating system for environmental statements. This rating is based primarily on the report's insufficient evaluation of the secondary impacts of induced growth.

If we can provide additional information or clarification, do not hesitate to contact Mr. Al Murrey (384-2390), Chief, Bureau of Water Quality.

Sincerely,

DEPARTMENT OF HEALTH
AND WELFARE

Lee W. Stokes, Ph.D.
Administrator, Division
of Environment

LWS:am/sy

cc: EPA, Idaho Operations Office
Henry Moran, IDHW - Pocatello
Orlando Ruike, IDHW
Jerry Keyes, IDHW

Response to Idaho Department of Health and Welfare letter

1. Although the 1994 projections may appear optimistic, they are considerably less than those presented in the County's 1971 Comprehensive Sewer and Water Plan, and they are less than those contained in the County's first draft of the Planning Study. The primary reason for this reduction is the budgetary constraints that have been placed on the Forest Service in their development of recreation facilities. As demand increases in this country, it is very possible that the Federal government will again increase its funding of recreation facilities to the Forest Service, which would cause these projections to be understated. Phased construction of facilities is indeed proposed in an effort to accommodate future projections in the most cost-effective fashion. Unfortunately, sewer lines are designed for 50 year or longer life, such that they must be sized for long term development in order to be cost-effective. However, in the case of most of the sub-areas, these future increases would cause at best a few inch increase in size of gravity mains, and perhaps only a 2 inch increase in force main sizing, which would result in minor increases in cost. For the construction of lagoon treatment facilities, whenever possible only one cell will be built initially and the minimum number of aerators installed. Cost-effectiveness considerations again will be the major constraint. Lands for sprayfields and sprayfield equipment will be utilized only as required. In almost all cases, collection system lines will be at a minimum size allowed by state health department codes.

   In summary, it does appear that the project has employed cost-effective phasing. As to the apparent problem of state and Federal governments financing future private development, State Local Improvement District codes require that all property be assessed in proportion to its benefits. New development will, therefore, be paying its fair share of the local costs. As to the provision of state and Federal funds for interceptor and treatment facilities for a new or recreation development, this is a matter to be decided through application of the state's priority rating system for funding.

2. We admit to the difficulty of thoroughly evaluating secondary impacts associated with this kind of project. However, we do not share your concern that the land surrounding critical shorelines which is in private ownership, would be subjected to accelerated development causing an adverse impact.

   In the Henry's Lake sub-area, this may be true for the shoreline along the north-northwest section of Henry's Lake, from Staley Springs to Wild Rose Ranch. In the Mack's Inn -- Island Park sub-area, all private land for which service is being provided is already developed. This is also true for the I.P. Bills Island -- Yale Creek sub-area. In the Last Chance --Ponds

Lodge sub-area, the only private land being served is already developed. The remainder of the areas for which service is being made available is in Forest Service control. The Forest Service is phasing out its private home site developments along the Buffalo River from its confluence with the Henry's Fork to the Buffalo Campground. It appears that they will be carefully controlling the shoreline development in areas within their jurisdiction.

As indicated in the draft EIS, 25 percent of the private land now subdivided has already been developed, and of the undeveloped area 80 to 90 percent of the lots are already sold. It is our conclusion that almost without exception the adverse impacts have already occurred. It is also our conclusion that in the absence of adequate sewerage facilities and adequate County land use controls, development would still occur and in areas resulting in more of an adverse impact on the environment. Provision of sewerage facilities coupled with adequate County land use controls, and a dynamic program of planning by the land use management agencies, should realize the best and highest potential for proper use of the resources in the Island Park area. There may be considerable advantages associated with the confinement of growth to planned areas. We would certainly appreciate more assistance in the evaluation of specific secondary impact.

3. Development of a comprehensive land use plan and zoning ordinance is a condition of the grant as discussed in the Preface of this final EIS.

Specific Comments:

1. This correction has been made.

2. This has been called to the County's attention for incorporation in any future reprints of the Planning Study which need to be made.

3. This has been called to the County's attention. A lagoon could perhaps be considered to be aesthetically appealing as contrasted with a mechanical treatment plant in a natural wooded area.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

SUBJECT: Review of Draft EIS on the North Fremont County Wastewater Facilities

DATE: NOV 6 1975

FROM: Kenneth E. Biglane, Director
Division of Oil and Special Materials Control (WH-548)

TO: Clifford V. Smith, Jr.
Regional Administrator, Region X

Attn: Richard Thiel

The comments of the Office of Water Program Operations on the subject EIS are enclosed. If any of the issues raised in these comments require clarification, please contact Geraldine Werdig, Chief, Environmental Evaluation Branch, (202) 245-3054. This memorandum confirms the comments telephoned to Mr. Thiel on November 3, 1975.

Project Description

Location: Fremont County, Idaho

Proposed Action: Construction of collection systems, interceptors, aerated lagoons, winter storage, chlorination facilities, and spray irrigation systems for four areas in Fremont County. The existing treatment units are septic tanks which are experiencing a high failure rate.

Major Issues:

1. The extent to which continued recreational development will impact the area resources
2. The extent to which the availibility of sewerage facilities will induce land use changes or rate changes.
3. The absence of local land use planning which might serve to control development or mitigate adverse impacts
4. The secondary impacts on fish and wildlife habitat

Review Coordinator: Kevin Warner

Enclosure

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NOV 13

EPA Form 1320-6 (Rev. 6-72)

Office of Water Program Operations
Comments on
Draft Environmental Impact Statement
Island Park Area Wastewater Facilities
North Fremont County, Idaho

1. The Region is to be commended for producing a document of this quality. The information is presented in a well-organized fashion and allows for an efficient review of the material. The following comments are intended to point out areas where further information or discussion is required.

2. To aid in their use, the maps in Appendix A should show distance scales.

3. There is mention on page 12 of the Agency appraisal of consultation with the Department of the Interior concerning threatened species and threatened species habitat. The final EIS should include information gathered from these consultations as it relates to the project.

4. As mentioned on page 14, the State Historical Officer has been contacted to determine if any known historical, cultural, or archeological sites exist within the study area. The State Historical Officer's findings should be included in the final EIS.

5. A statement on page 24 describes the impacts of the facilities on rare, endangered, or unique species as "negligible." Language in the final statement should be more specific, and detailed enough to identify the extent of these impacts.

Response to EPA Headquarters Review Memo

2. Attachment 1 (Sewer Facilities Planning Study): all maps either show the scale or designate sections (1 sq. mile)

3. Consultation with the Department of Interior concerning threatened species was through their review comments on the Draft Environmental Impact Statement. Their comments and EPA's response are found on page 2 of their letter.

4. Appendix A of the final EIS contains the results of the archaeological survey conducted in response to the State Historical Officer's recommendation. His review comments follow the report. The survey confirmed the draft EIS' statement that the project will have no impact on historical, cultural, archaeological, or architectural sites.

5. See response to page 4 of the Department of Interior comments for a discussion of the concept of negligible impact on rare, endangered or unique species.

69
IDAHO STATE HISTORICAL SOCIETY
610 NORTH JULIA DAVIS DRIVE BOISE, IDAHO 83706

STATE MUSEUM

October 30, 1975

RECEIVED
OCT 31 1975
IDAHO OPERATIONS OFFICE

Dr. Clifford V. Smith, Jr.
Regional Administrator
U. S. Environmental Protection Agency
Region X
1200 Sixth Avenue
Seattle, Washington 98101

Dear Dr. Smith:

In response to your request for information concerning your porposed impact statement for Project C 1601 1 86 01 (Island Park Wastewater treatment facilities), let me suggest in answer to your questions on page 4 that

1. You will have to provide an inventory of architectural, historic, and cultural sites in the project area, and be able to demonstrate that this inventory was used in the planning process. This requirement is imposed by the Advisory Council for Historic Preservation.

2. The response on page 4 in question 5 that the study area has no architectural, cultural, or historic sites is both inaccurate and inadequate. Our state inventory for that particular area has not progressed too far, but we already list 30 or so cultural sites and will have some architectural ones as the survey progresses.

3. Your project is unlikely to have adverse impacts upon architectural sites, but other cultural resources (especially archaeological) will have to be considered. An archaeological survey will be required, and Peter Schmidt, Idaho State Archaeologist, will help you to arrange for one so that you can comply with 36 CFR 800.4 and other provisions associated with Advisory Council review.

4. Lynn McKee has been in touch with me since an early stage in preparation of your statement, so that requirement has been met. Regardless of whether the planning area has historic or cultural resources, this step is necessary.

I appreciate receiving this material concerning the project and shall be glad to help in the preparation of your impact statement in any way possible. I shall continue to be in touch with Lynn McKee about this.

Sincerely,

Merle W. Wells
State Historic Preservation Officer

MWW:mjw

IDAHO STATE HISTORICAL SOCIETY
610 NORTH JULIA DAVIS DRIVE BOISE, IDAHO 83706

STATE MUSEUM

**Project:** C 1601 186 01

In order for your project to qualify for federal approval, it is necessary to have an adequate inventory of archaeological and historical sites in the area. Any sites on or eligible for the National Register of Historic Places have to be included. The impact of the above described project on the archaeological, historical, architectural or other non-renewable cultural resources can be assessed only by an on-site reconnaissance survey performed by a professional archaeologist. Documentary research has indicated that there is insufficient evidence to determine if there are sites which may be eligible for the National Register; therefore, a site survey is necessary to determine if there are eligible sites and if eligible sites will be affected.

The State Archaeologist will assist any agency or private concern by supplying a list of consulting archaeologists who have specific expertise in the area concerned. In the unlikely event that a bona fide archaeologist is not available to perform such services, then it may be possible to contract for such services with the State Historical Society.

As a part of the assessment procedure, it will be necessary to submit to the State Archaeologist a report performed by a professional archaeologist. This report will 1) enumerate the kinds of sites and their location, 2) discuss the significance of the site, and 3) assess the potential impact, if any, of the project on the sites. These data will then be used by the concerned agency official and the State Archaeologist to apply the "Criteria of Effect" (included in 36 CFR 800.8) and, if necessary, the "Criteria of Adverse Effect" (36 CFR 800.9) as set out in the procedures for protection of historic and cultural properties under the National Historic Preservation Act.

If further clarification of these obligations is desired or if further assistance is necessary, please contact the State Archaeologist or State Historic Preservation Officer. In any event, we expect to assist you in gaining further advice and professional consultation.

Sincerely,

Peter R. Schmidt

Peter R. Schmidt, Ph. D.
State Archaeologist

Response to Idaho State Historical Society Letter

The survey of architectural, archaeological, historical, and cultural sites conducted in response to this letter is contained as Appendix A in this final EIS. The State Archaeologist's comments follow the report. The report concludes that the proposed project will have no primary impact on architectural, archaeological, historic, or cultural sites in the project area. These findings have been transmitted to the Advisory Council for Historic Preservation for their final evaluation.

United States Department of the Interior

OFFICE OF THE SECRETARY
PACIFIC NORTHWEST REGION
P.O. Box 3621, Portland, Oregon 97208

November 11, 1975

ER-75/946

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NOV 14 1975
EPA-FIS

Mr. Richard R. Thiel, Chief
Environmental Impact Section, M/S 443
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

Dear Mr. Thiel:

This responds to your request for comments on the Draft Environmental Impact Statement for Wastewater Facilities, North Fremont County (Island Park Area), Idaho.

GENERAL COMMENTS:

Much of what now makes the Island Park Area a scenic, aesthetic and recreational attraction would be lost if the sewage system is constructed and development of further subdivisions allowed. A more detailed discussion of the proposed project's secondary environmental impacts on the quality of recreational experiences in the Island Park area would aid in project assessment. 1

The information contained in the draft statement lacks sufficient detail to adequately determine the impacts on fish and wildlife resources and their associated habitats with implementation of any of the proposed alternatives.

In general the proposed action is oriented toward correction and development without detailed consideration for the preservation or enhancement of the fish and wildlife resources of the project area, or the specific sites considered for proposed treatment and disposal facilities. 2

On page two, paragraph three, third sentence, "the nature of the sensitive environment, and the potential for significant land use changes . . ." is listed among the reasons for statement preparation. However, the

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document does not analyze in detail the primary or secondary impacts which would occur to fish and wildlife or their respective habitats. The document should address more completely fish and wildlife impacts which would be caused by continuing recreational developments and induced land use changes that the project would encourage and accelerate. 2

The final environmental statement should include an evaluation of exfiltration and infiltration specifications; however, we anticipate that almost any type of sewer construction should have beneficial net impacts on ground water in the situation as described. 3

The draft statement notes that the east central portion of Fremont County has been identified as a "national geothermal resource area." The official terminology is "Known Geothermal Resource Area" (KGRA). For planning purposes, the KGRA boundaries should be identified on maps. 4

Development of sewage treatment facilities is admittedly desirable to improve water quality and protect human health in the project area. But this singular concern should not be dominant over all other resource values found here. From the information contained in the draft, the reader can gain the impression that the proposed sewage treatment developments unquestionably will occur. As a correlative to this conclusion, much emphasis is placed on economic costs of alternative methods of development in the draft. Conversely, environmental impacts, other than water quality and human health, are treated in a superficial manner and we suggest this part of the analysis could be much improved by more fully addressing other impacts. 5

SPECIFIC COMMENTS:

Page 12, paragraph 4. Under the heading of threatened species, list only the grizzly bear. In addition there should be a heading for endangered species listing the northern Rocky Mountain Wolf and American peregrine falcon. The prairie falcon is no longer listed as either threatened or endangered but is a likely candidate for classification. 6

Page 12, paragraph 5. We suggest the deletion of the first sentence. There is no evidence provided that the Department of the Interior has been consulted regarding possible project impacts on the two endangered and one threatened species known to be present in the study area as referenced in Section 7 of the Endangered Species Act of 1973 (P.L. 92-205). The last sentence in this paragraph says ". . .that there has been detrimental impact on threatened species habitat noted in the past due to the development that has already occurred." Then on page 23, paragraph 3, 7

the statement is made that "There is expected to be some increase in development in the area induced by construction of the proposed treatment facilities." Impacts to any endangered and threatened species and their habitats and to other wildlife which cannot be avoided with the project should be identified. If possible, specific locations of these impacts by site, subarea, study area, and region should be indicated. 7

Page 14. The statement that there are no cultural sites in the project area should be documented. For historic sites, the "National Register of Historic Places" and the Idaho State Historic Preservation Officer should be consulted. The former was last printed in the Federal Register on February 4, 1975, and is updated the first Tuesday of each month. The results of these consultations should be reported and documented in the final statement. 8

If archeological surveys of the area have been made, they should be cited. If surveys have not been made, archeological authorities at the University of Idaho or Idaho State University should be consulted to determine if resources are likely to occur and if archeological surveys should be made prior to construction. The final statement should report what has been done regarding the protection of archeological resources. Information regarding the Big Springs site should be corrected. This work of volcanism has been declared a potential natural landmark. It has been identified through the natural history theme study method but has not yet been designated as a natural landmark by the Secretary of the Interior.

Page 14 and 15 - Land Use. The discussion on the bottom of page 14 and top of page 15 indicates 7,777 acres will be developed over the life of the project (which apparently is twenty years). It is further stated that this acreage is 1.3% of the 600,000 acre study area and implies the project and its related impacts would be insignificant to natural resources. The implication is that this small percentage represents an insignificant loss of wildlife values. This appears erroneous. More accurately, loss of habitat must be viewed in the light of the primary area affected and, more specifically, what particular species or populations are involved and how their life requirements are affected. 9

Page 16 - Other Agency Programs or Projects. This section should address two additional points:

1. Bureau of Land Management officials have not been contacted for input into either the study or EIS. It seems appropriate to contact this agency before developing plans involving land under its administration.

2. Several of the BLM tracts to be used if the proposed plan is implemented are currently under selection by the State of Idaho as Lieu Lands. This could create a potential conflict for the proposed plan. 10

Page 17 - Project Alternatives. This section should contain an analysis of alternative site locations as well as alternative processes. Figures 18 through 21 seem to indicate that lagoon and spray field location was determined by land ownership rather than land suitability. Although the study contains a cost comparison of alternative sites and processes, neither document contains an adequate environmental analysis of alternatives. In addition, it appears decisions concerning location and type of process were made primarily on a dollar cost basis. 11

Page 18, goal #3. Where and how this goal has been met should be clarified. 12

Page 24, Aesthetics. The actual impact on vegetation and fish and wildlife at each specific site should be identified. The last sentence in the paragraph implies that there will be impacts on endangered, threatened, and unique species. The term "negligible" does not adequately identify and analyze in detail the impacts which are referred to. The specific impacts should be described and discussed.

Page 25, Secondary Impacts. The secondary impacts which will occur for endangered or threatened species, other fish and wildlife, and their respective habitats as a result of the proposed project should be identified for each subarea as well as for the entire study area. 13

Page 26, Secondary Impacts. Mention is made that the proposed action will induce additional population growth (which, incidentally, will create additional demand for sewage treatment facilities, roads, trails, camping, facilities, utilities, energy, etc.). The statement "Such activity would tend to restrict the movements of wildlife, particularly the moose, trumpeter swans, and geese" is not an adequate discussion of what the true impact to these and other species will be. It would appear that primary and secondary impacts on wildlife, and therefore on people, would be more serious than presented. Also, some attention should be given to possible beneficial uses of wastewater that are currently or potentially possible.

Page 27. Some erosion by wind and water will occur at construction sites before the vegetative cover can be restored. Mitigating measures to minimize this short-term adverse impact on the surface-water regime should be considered. 14

Page 27, paragraph 2, last sentence. The specific minor interferences which the wildlife will experience should be identified and discussed.

Page 28, paragraph 3. accordance with state design standards, thus effectively preventing percolation into ground water. Monitoring measures should be considered in order to maintain the water quality of both ground-water and surface-water regimes in the area of hydrologic influence of the lagoons. | 15

Pages 28 and 29, Secondary impacts. The impacts referred to in this section are not clearly identified in the preceding chapter as is stated in the last sentence on page 29. Unavoidable adverse impacts to fish and wildlife should be indicated and be as site specific as possible. | 16

Page 30, paragraph 1. The use of a low pressure dosed disposal system as described in the last sentence could possibly cause sufficient soil compaction that would have an adverse impact on the plant and animal communities present. | 17

Page 30, paragraph 5, last sentence. In reviewing Chapters III and IV of the statement, the specific impacts and mitigative measures referred to were difficult to identify. These should be clarified. | 18

Page 115, paragraphs A. 2. (a) (b) and (c). There should be some statement for the proposed wastewater treatment system should contain an appropriate statement regarding onsite responsibility for surveillance and maintenance to assure adequate operation of the system. | 19

ATTACHMENT 1 - NORTH PERRY COUNTY WATER FACILITIES PLANNING STUDY

The environmental assessments contained in this attachment do not adequately identify and analyze in detail the impacts which would occur to endangered and threatened species, other fish and wildlife, or their respective habitats, and therefore does not fulfill the needs of the preceding environmental impact statement as implied on page 2, paragraph 3, of the draft statement. | 20

SPECIFIC COMMENTS

Page 1, Summary, last paragraph. It is unlikely that the contamination caused by [illegible] in the study area would render the rivers and lakes [illegible]. | 21

Page 17, last paragraph, last sentence. If the concentrations of moose and nesting sandhill cranes are [illegible] to be a possible cause of [illegible], then the impacts which would occur to these populations should be discussed in detail in an environmental statement or environmental assessment of the [illegible] project for the specific treatment site [illegible]. | 22

Page 30, Threatened and Unique Species of the Study Area. Please refer to previous comment concerning page 12 of the EIS. The mention of literature which is pending publication does not adequately describe in detail the habitat requirements of the endangered and threatened species of this study area nor the project-caused impacts which would occur to these species. Of major concern are the secondary impacts which would occur to endangered and threatened species present as a result of the increased development and year around use caused directly by project construction. Please refer to the comments on pages i, 2, and 12, Chapters III, IV, V, and VI of the draft statement, particularly page 12, last paragraph, last sentence.

Page 33, I, Identification of Environmentally Sensitive Areas. Please refer to previous comments concerning page 30. Required habitats for endangered and threatened species are not identified.

Page 94, E. Environmental Considerations. Neither this section or Table 16 (page 98) adequately describes in detail impacts which would occur to endangered and threatened species, other fish and wildlife, nor their respective habitats. This information should be added.

Page 107, IX, The Treatment Plant, paragraph 2. For each of the alternative sites selected for evaluation in Chapter IX, the impacts which would occur to fish and wildlife resources should be identified and described.

23

Page 107, A. Henrys Lake Subarea. It would be helpful to know what considerations were used in evaluating the environmental impacts to determine which alternative was the most attractive. Please refer to comments above concerning page 17 of the Planning Study. Additional alternative sites should have been selected for evaluation. A systematic means of appraisal based on specific criteria could be used to evaluate possible primary and secondary impacts to endangered and threatened species, other fish and wildlife, and their respective habitats for each site. This would help in meeting the goal identified on page 34, paragraph 3, No. 3.

24

Page 108, B. Mack's Inn - Island Park Lodge Subarea. Evaluation of two sites is adequate in examining the alternatives available to this subarea. It appears preferable that the treated waste water be applied to the existing Island Park Village golf course. This would eliminate the need of committing any additional wildlife habitat to development and promote a multiple use concept of the study areas limited land resources.

25

Page 109, C. I. P. Bill's Island - Yale Creek Subarea. It appears that evaluation of only three sites is inadequate in examining the alternatives available to this subarea. An example of an additional site would be the evaluation of the SW1/4 of section 16, T. 13 N., R. 43 E., BM. This land is probably destined to some form of development in the near future; therefore, its use as a spray irrigation site would again eliminate the need for committing public lands and the associated fish and wildlife resources. 26

Page 110, E. General. Please refer to previous comments above concerning page 30, paragraph 1, of the draft environmental statement. In addition the study recommended in the last paragraph on page 110 should include effects of sprinkler irrigation on the wildlife species present at each selected site.

We appreciate the opportunity to review and comment on this document.

Sincerely yours,

Charles S. Polityka

Charles S. Polityka
Acting Special Assistant
to the Secretary

Response to U.S. Department of the Interior letter

1. We would agree, however, we are not sure that the more detailed discussion is needed for an informed management decision. Within the reasonable scope of an impact statement for this project, we found it difficult to do a thorough evaluation of all secondary impacts which would completely satisfy all readers. In response to these comments we would like to quote portions of the comment letters from the two agencies most intimately involved in day-to-day management of the natural resources of the Island Park area.

   Targhee National Forest: "We of the Targhee National Forest concur that corrective action for the subareas listed is needed and that the corrective action should entail solutions of water pollution of area-wide and all-inclusive bases as proposed. We feel the benefits to be derived outweigh the impacts. We concur that the proposed method of treatment is the best method based on today's technology and sewage treatment...We feel for the scope of this proposal adequate inventory, study, and evaluation of effects on wildlife, fish, vegetation, and water and air resources has been presented. We base this judgment on the findings of the National Forest Interdiscipline Team of specialists engaged in study and evaluating this same part of Fremont County."

   Idaho Department of Fish and Game: "From our standpoint the selected plan (spray irrigation to achieve secondary treatment plus nutrient removal) is the only acceptable plan formulated...Reducing the public health hazard in Island Park will put greater demands on the stream and lake fisheries because of greater public usage. This will require more intensive management on our part; however, we feel the plan is necessary and will have an overall beneficial effect on the important fisheries of the Island Park Area."

3. Current sewer line design and construction techniques and materials now used have essentially eliminated exfiltration or infiltration problems. The County's construction specifications will be reviewed for this item and proper testing following construction will be required.

4. This correction has been made.

5. It was not the intent of the Draft EIS to leave the reader with the impression that the proposed sewage treatment developments unquestionably would occur regardless of findings of the planning study or the comments made by interested public or agencies.

6. This correction has been made.

7. The first sentence has been deleted. The dissemination of the draft EIS to the Department of the Interior was intended to provide the Department with the opportunity to comment on the possible impacts on the endangered and threatened species known to be present in the study area. We have not been able to identify any impacts on endangered or threatened species and their habitats which cannot be avoided if the project is to be constructed. We do feel that for all practical purposes the adverse impact to wildlife has already occurred due to the 25 percent development in existing subdivided or plotted areas.

8. See the response to the Idaho State Historical Society letter.

9. As stated above, for all practical purposes, we feel that the loss of habitat due to development has already occurred. If the project is implemented, it should have a beneficial impact on wildlife habitat in that the provision of sewerage facilities coupled with adequate county land use controls should confine development and prevent the loss of habitat in new outlying areas.

10. The only Bureau of Land Management property directly involved with construction of the project is located immediately north of Henry's Lake and is land crossed by a proposed force main going to treatment and sprayfield site no. 1. The County's consultants did contact local BLM officials during the course of the planning study. It is also assumed that the Department of Interior coordinating office would have sent one of the 15 copies of the Draft EIS which they received to the Bureau of Land Management since it is one of their agencies. No comments have been received from them. It, therefore, can only be assumed that they do not feel the project warrants their comment.

11. From the standpoint of Environmental Impact, all 12 of the treatment plant and sprayfield sites studied are considered environmentally acceptable. As stated on page 107 of the Planning Study, the primary considerations in site selection were: (1) cost of the required transmission lines, and (2) environmental impact. For each sub-area, other sites were studied and screened out, and do not appear in the report. Following is a table listing other site considerations which were utilized in reaching the tentative decision on site selection. In addition to this information and Figures 8 through 21, see Table 16 and pages 107 to 110.

12. This goal has not yet been met.

13. Again, we can only respond to these comments in a general way. Generally speaking, the secondary impacts on wildlife which

SUMMARY OF SPRAYFIELD

SITE CONSIDERATIONS

| SUB AREA | SITE | AREA | AVG. SLOPE | APPROX. DEPTH TO GRND. WATER | SUBSOIL CONDITIONS | VEGETIVE COVER |
|---|---|---|---|---|---|---|
| Henry's Lake | 1 | 30a. | 6% | 50' | dirty gravel | June grass and sagebrush |
| | 2 | 30a. | 10% | 20' | loam and gravel | native grass and sagebrush |
| | 3 | 30a. | < 1% | 3' | 3 ft. of soil over sand and gravel | meadow hay |
| Mack's Inn I.P. Lodge | 1 | 40a. | 1% | 30' | sandy loam | small lodgepole, native grasses, lupine |
| | 2 | 40a. | 1% | 30' | sandy loam | small lodgepole, native grasses, lupine |
| (late addition) | 3 | -- | 3% | 15' | coarse sand | golf course |
| I.P. Bill's Yale Creek | 1 | 40a. | 1% | 30' | sandy loam and dirty gravel | clear cut area, re-seeding annuals, native grasses |
| | 2 | 40a. | 3% | 30' | sandy loam over gravel | large lodgepole, typical native understory |
| | 3 | 40a. | 1% | 30' | sand loam over gravel | native grasses and sagebrush |
| Last Chance Ponds's Lodge | 1 | 40a. | < 1% | 20' | sandy loam | some large lodgepole, heavy grasses |
| | 2 | 40a. | < 1% | 20' | sandy loam | some large lodgepole, heavy grasses plus some rock outcrops |
| | 3 | 40a. | < 1% | 20' | sandy loam | lodgepole, rangeland grasses |

would occur are contained in the discussion on pages 27 to 32 of the Planning Study. We are not sure it is practical if even possible, for this kind of project, to accurately predict the precise secondary impacts which would occur for each sub-area on each species of fish or wildlife. Since 25 percent of the private land has already been developed, and 80 to 90 percent of the remaining lots have been sold, we consider that, for all practical purposes, the impact on wildlife habitat has already occurred, and that in view of the size and nature of the entire study area, this impact is not significant.

Concerning the restriction of the movements of wildlife which was mentioned on page 26 of the Draft EIS, the word "restrict" is perhaps not a good choice of words. Moose, swan, and geese ranges are generally not within the areas which will be impacted either primarily or secondarily due to the project construction. We would predict then that there would possibly be only minor alterations on the feeding and migration patterns of these species and not to a significant degree.

14. Mitigating measures for wind and water erosion problems occurring during construction will be included in the construction specifications. Considering the topography, soil, and vegetation conditions present at the construction sites, this impact should not be significant, and should be easily controlled by proper construction techniques.

15. Monitoring measures will be included in the operations and maintenance manual which must be prepared as a condition of the award of Federal construction grant funds.

16. Refer to previous discussion and to letters of comment from the Idaho Fish and Game Department and U.S. Forest Service.

17. No adverse impact on animal communities at the sprayfields is anticipated. Informal contact with the USDA Agricultural Research Service, Kimberly Station, indicates that for the soils present at the proposed sprayfield sites, soil compaction will not be a problem. No adverse impact on plant communities is anticipated.

18. Chapters 3 and 4 do contain discussion of specific impacts which are identified as such. Mitigative measures are also covered, including the following: construction techniques to control erosion and turbidity; phase construction so that the effects of spray disposal on lodgepole pine can be evaluated; development of regulations to control off-the-road vehicles; requirements for the replacement of vegetative cover to control wind and water erosion; landscaping for aesthetic purposes; control of nozzle size to prevent transmission of pathogens through aerosols; use of aeration to prevent ice buildup and odors from lagoons; conditioning of the grant award for design

and construction upon the development of suitable land use controls; and location of separate facilities for each sub-area in lieu of a single regional plant with long connecting interceptors, to limit development.

19. We disagree. This is more properly part of an operations and maintenance manual, preparation of which is a condition of award of Federal grant funds for construction.

20. We disagree. We judge the assessment to be adequate. See previous discussion.

21. The use of the word sterile perhaps is not a good word choice. However, significant deterioration of water quality and aquatic species affecting recreation use has already been observed.

22. This comment is not clearly understood. Little or no impact on the population of nesting sandhill cranes, moose, or waterfowl on the Henry's Lake flats is expected. Most of the land is privately controlled and not available for hunting or additional road development.

23. See previous discussion. The project may actually have a beneficial secondary impact on wildlife habitat by reason of it concentrating development in presently developing sites, rather than permitting sprawl type development likely with no project.

24. We disagree that additional alternative sites should have been selected for evaluation. We would appreciate learning of the systematic means of appraisal based on specific criteria which you indicate could be used to evaluate possible primary and secondary impacts to endangered and threatened species, other fish and wildlife, and the respective habitats for each site.

25. The Island Park Village Golf Course is presently being given serious consideration as a site for effluent disposal.

26. The purchase of 50 acres of treatment and [illegible] in this area would cost approximately $500,000 - $600,000 and would render this alternative financially infeasible. See our comment no. 6 to the League of Women [illegible] letter.

Advisory Council
On Historic Preservation
1522 K Street N.W.
Washington, D.C. 20005



November 17, 1975

Mr. Richard R. Thiel, Chief
Environmental Impact Section, M/S 443
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

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Dear Mr. Thiel:

This is in response to your request of September 22, 1975, for comments on the draft environmental statement for North Fremont County, Island Park Area, Wastewater Facilities, Idaho. Pursuant to its responsibilities under Section 102(2)(C) of the National Environmental Policy Act of 1969, the Advisory Council on Historic Preservation has determined that while you have mentioned the historical, architectural, and archeological aspects related to the undertaking, the Advisory Council needs additional information to adequately evaluate the effects on these cultural resources. Please furnish additional data indicating:

I. Compliance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470[f]). The Council must have evidence that the most recent listing of the National Register of Historic Places has been consulted (see Federal Register, February 4, 1975 and monthly supplements each first Tuesday thereafter) and that either of the following conditions is satisfied:

   A. If no National Register property is affected by the project, a section detailing this determination must appear in the environmental statement.

   B. If a National Register property is affected by the project, the environmental statement must contain an account of steps taken in compliance with Section 106 and a comprehensive discussion of the contemplated effects on the National Register property. (36 C.F.R. Part 800 details compliance procedures.)

II. Compliance with Executive Order 11593, "Protection and Enhancement of the Cultural Environment" of May 13, 1971.

A. Under Section 2(a) of the Executive Order, Federal agencies are required to locate, inventory, and nominate eligible historic, architectural and archeological properties under their control or jurisdiction to the National Register of Historic Places. The results of this survey should be included in the environmental statement as evidence of compliance with Section 2(a).

B. Until the inventory required by Section 2(a) is complete, Federal agencies are required by Section 2(b) of the Order to submit proposals for the transfer, sale, demolition, or substantial alteration of federally owned properties eligible for inclusion in the National Register to the Council for review and comment. Federal agencies must continue to comply with Section 2(b) review requirements even after the initial inventory is complete, when they obtain jurisdiction or control over additional properties which are eligible for inclusion in the National Register or when properties under their jurisdiction or control are found to be eligible for inclusion in the National Register subsequent to the initial inventory.

The environmental statement should contain a determination as to whether or not the proposed undertaking will result in the transfer, sale, demolition or substantial alteration of eligible National Register properties under Federal jurisdiction. If such is the case, the nature of the effect should be clearly indicated as well as an account of the steps taken in compliance with Section 2(b). (36 C.F.R. Part 800 details compliance procedures.)

C. Under Section 1(3), Federal agencies are required to establish procedures regarding the preservation and enhancement of non-federally owned historic, architectural, and archeological properties in the execution of their plans and programs.

The environmental statement should contain a determination as to whether or not, pursuant to the Advisory Council's "Procedures for the Protection of Historic and Cultural Properties" (36 C.F.R. Part 800), the proposed undertaking will contribute to the preservation and enhancement of non-federally owned districts, sites, buildings, structures and objects of historical, architectural or archeological significance.

III. Contact with the State Historic Preservation Officer.

The procedures for compliance with Section 106 of the National Historic Preservation Act of 1966 and the Executive Order 11593 require the Federal agency to consult with the appropriate State Historic Preservation Officer. The State Historic Preservation Officer for Idaho is Dr. Merle W. Wells, Director, Idaho Historical Society, 610 North Julia Davis Drive, Boise, Idaho 83706.

Should you have any questions or require any additional assistance, please contact Brit Allan Storey of the Advisory Council staff at P. O. Box 25085, Denver, Colorado 80225, telephone number (303) 234-4946.

Sincerely yours,

Louis S. Wall
Assistant Director, Office
of Review and Compliance

cc:
Sheldon Meyers-EPA:FLO

Response to Advisory Council on Historic Preservation Letter

See response to Idaho State Historical Society letter.

November 20, 1975
Pocatello, Idaho. 83201

Environmental Protection Agency
Seattle, Washington
Ref. Proj. C-160186-01
Dear Sir:

We wanted like to ask if serious consideration has been given and an indepth study been made in the proposed sewer project in Fremont County, Island Park, Ypicreek Cabin sites of Idaho?

The area of Ypicreek Cabin sites are located in such an area as to be unfeasible to a sewer system as proposed by the Commissioners and the Forsgren Engineering Firm.

Let us point out just a few of the points which we believe would make a sewer system unfeasible.

1) All lots in Ypicreek Cabin sites are of 1 acre or more, some are 4 acres and one even is approx 39 acres And all who have homes on them have State approved systems or are putting in State approved systems

2.) The terrain is hills and creeks and so how could sewer lines be used without doing bulldozer work which would upset the ecology of the beautiful region.

One only has to walk in some places and will elevate 200 ft straight up, solid rock and timber and very delicate vegetation.

In order for lines to be run there would have to be deep trenches dug into this rock formation which would call for blasting. In respects to blasting, which would happen to our wells, which have cost many hundreds of dollars to put in. And also blasting in that area so close to an earthquake fault, in such a large section of land, would seem very unwise. If the Air Force worries about "sonic booms" over earthquake areas, such a large project of putting a sewer system into this mountainous area would seem as risky.

3.) I would wonder at the sewer being put across creeks, and rivers in the area. What about contamination, if the lines should break due to extreme weather conditions

In winter there is as much as

(cont'd page 8)



72 inches of snow on the ground And temperatures fall to as much as 20 or more degrees below Zero. How can a system be maintained and serviced in winter?

We believe that our land and water should be kept clean and as free from pollution, but also important to the ecology of our land and wildlife, birds, fish.

A better system than the proposed one, and ~~in~~ depth study and a visit to the area in June, July should be made so that a firsthand inspection could determine our needs.

We hope you will give this letter some thorough and considerative.

We are enclosing at the bottom of this letter our Island Park property listing so as to confirm we are a legal landowners.

4 acres - Pyle Creek Subdivision
Lots 2 & 4 26 - Block 2
Fremont County, Idaho.

Sincerely

Mr & Mrs W. H Shiflett
330 W Chubbuck Rd
Comelot Estates #36
Pocatello Idaho 83201

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Response to W. H. Shiflett letter

See responses to Rex Moore and Richard G. Hackworth letters.

# APPENDIX A

FINAL REPORT

OF ARCHAEOLOGICAL SURVEY OF ISLAND PARK AREA

WASTEWATER FACILITIES

EPA PROJECT NO. C-160186-01

By: B. Robert Butler

Acting Chairman and Associate Professor
Department of Anthropology

and

Curator of Archaeology, Museum

Idaho State University

Pocatello, Idaho

December 23, 1975

A-1

Historic and Archaeologic Values

The immediate vicinity of Henry's Lake and the Henry's Fork of the Snake downstream from there past Last Chance form "Island Park", an area which figures prominently in the history and prehistory of northern Fremont County. No buildings, places or archaeological sites in this area are listed on the National Historic Sites Register, for the area has not been systematically studied. There is, however, a locally published history of the area (Idaho's Gateway to Yellowstone, The Island Park Story: A Pictorial Presentation by James L. Allison and Dean H. Green, Island Park Gateway Publishing Co., Mack's Inn, Idaho, 1974) and an archaeological field team under the direction of Professor B. Robert Butler, Idaho State University, has been inventorying cultural resources on BLM lands in the area. Cultural resources include structures, objects, sites and districts which have archaeological, historical or architectural significance. Such resources are limited and non-renewable and, therefore, require protection and preservation.

The cultural resource inventory work carried out on BLM lands in this area by Professor Butler in 1975 yielded a substantial quantity of archaeological materials around Henry's Lake, some of which indicated human occupance of the lake shore at least as early as 10,000-10,500 years ago and at various times since. The inventory did not cover any of the lands involved in the proposed Island Park Area Wastewater Facilities. Because no such inventory had been made of the lands involved, the Seattle Office of the U. S. Environmental Protection Agency (Region X) requested Professor Butler to carry out such an inventory towards the end of November, 1975, even though snow already blanketed the region.

Working on touring skis, in a two-man team, the Henry's Lake, Mack's Inn-Island Park Lodge, and Last Chance-Pond's Lodge subareas were completely surveyed. At the times of the survey, November 28, December 6 and December 13, the I. P. Bills Island-Yale Creek subarea was inaccessible, at least for the survey team. The purpose of conducting the survey in spite of the snow cover was two-fold. First, the snow cover would not be gone before May at the earliest. To delay the survey work until then would cause a serious delay in completing plans for the wastewater project. Second, based on his previous experience in the area, Professor Butler believed that he could identify the locations which had the highest probability of yielding cultural materials on the basis of local landform and vegetation, both apparent in spite of the snow cover. In each subarea examined, the entire length of the project shown on the map provided and outlined in yellow by the Seattle Office of the EPA was followed and places which should be test-excavated for prehistoric cultural materials noted. The latter are as follows:

Henry's Lake Subarea--Local informants with whom Professor Butler visited in the autumn of 1974 showed him archaeological materials collected from the perimeter of the lake, some of which were in the age range of 10,000-10,500 years. He also collected materials from the lake shore, mainly along the south and west sides of the lake, and was told of similar materials collected along the northeast shore of the lake at low water. Henry's Lake Flat on the east side of the lake figured prominently in historic events that transpired here. Because of these abundant indications, a minimum of four test pits, each measuring 1 x 2 x 1.5 meters, is recommended. Because the interceptor system runs so close to presently developed facilities (roads, etc.), these pits should be excavated in undisturbed deposits. In the event

that buried prehistoric cultural materials are encountered, provisions should be made for expanding the test excavations and recovering all of the material that would be adversely impacted by the project. These provisions should apply both to the test excavations and to subsequent interceptor line and disposal site excavation.

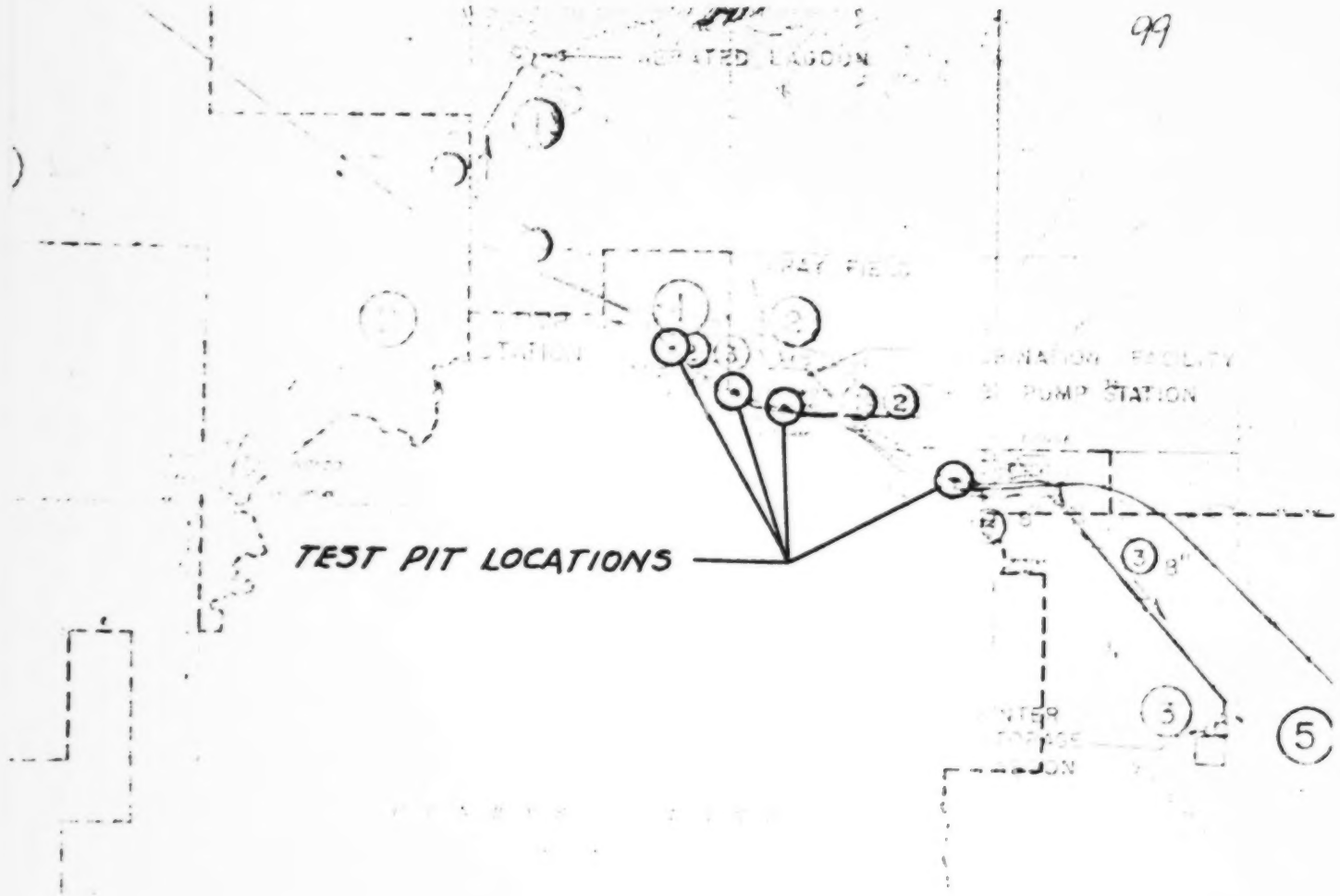
Mack's Inn-Island Park Subarea--For the most part, the proposed interceptor system and siposal sites are located in a heavily forested area. The interceptor line, however, dissects an older terrace of the Henry's Fork in the extreme northwest corner of Section 31. Such terraces have yielded ancient cultural materials. Therefore, a test excavation measuring 1 x 3 x 1 meter is recommended at this juncture, with provisions made as above.

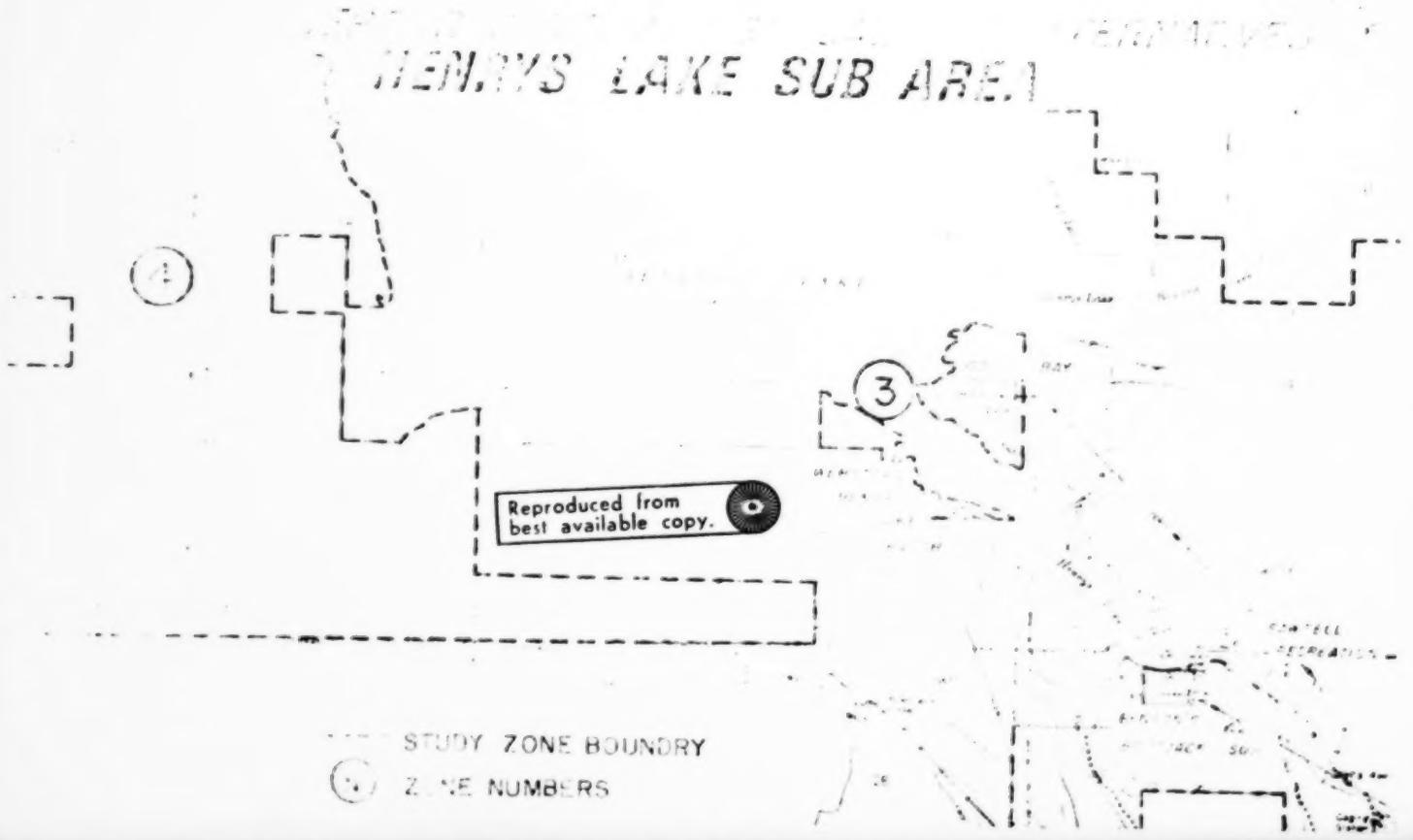
I. P. Bill's Island-Yale Creek Subarea--While surveying private property along the southern shore of the Island Park Reservoir in 1966, Professor Butler observed extensive prehistoric cultural materials eroding out of the wave cut banks of the reservoir. Therefore, archaeological potential of this subarea appears relatively high and a minimum of three 1 x 3 x 1 meter test pits are recommended with the same added provisions as at Henry's Lake.

The Last Chance-Pond's Lodge Subarea--The major part of the interceptor system and disposal site is in a heavily wooded area well away from rivers and streams. However, part of the interceptor system lies close to the Buffalo River in Sections 27 and 28 and another part lies close to the Henry's Fork in Section 17. While surveying the Railroad Ranch in 1966, Professor Butler noted prehistoric cultural materials along both sides of Henry's Fork immediately downstream from Last Chance. There appears to be a good chance that similar cultural materials occur along the river in the

vicinity of Last Chance and possibly also along the Buffalo River below Pond's Lodge. Therefore, a minimum of four 1 x 3 x 1 meter test pits are recommended along these parts of the proposed interceptor lines, again with the same provisions outlined for the Henry's Lake interceptor system.

The test excavations proposed above could not be carried out until snow had left and the area was relatively dry. In the meanwhile, however, the interceptor systems could be staked out and work begun of the disposal sites without posing serious threat to cultural resources. In fact, excavation of the interceptor trenches could be carried out on all projects except Henry's Lake, provided that where prehistoric cultural materials were encountered, the immediate stretch of trench would be left open for excavation by an archaeological crew. Work on the Henry's Lake project could progress to the excavation stage prior to archaeological testing, but such testing should almost certainly precede any excavation here. Henry's Lake has the highest potential among the four subareas in question for prehistoric cultural materials.

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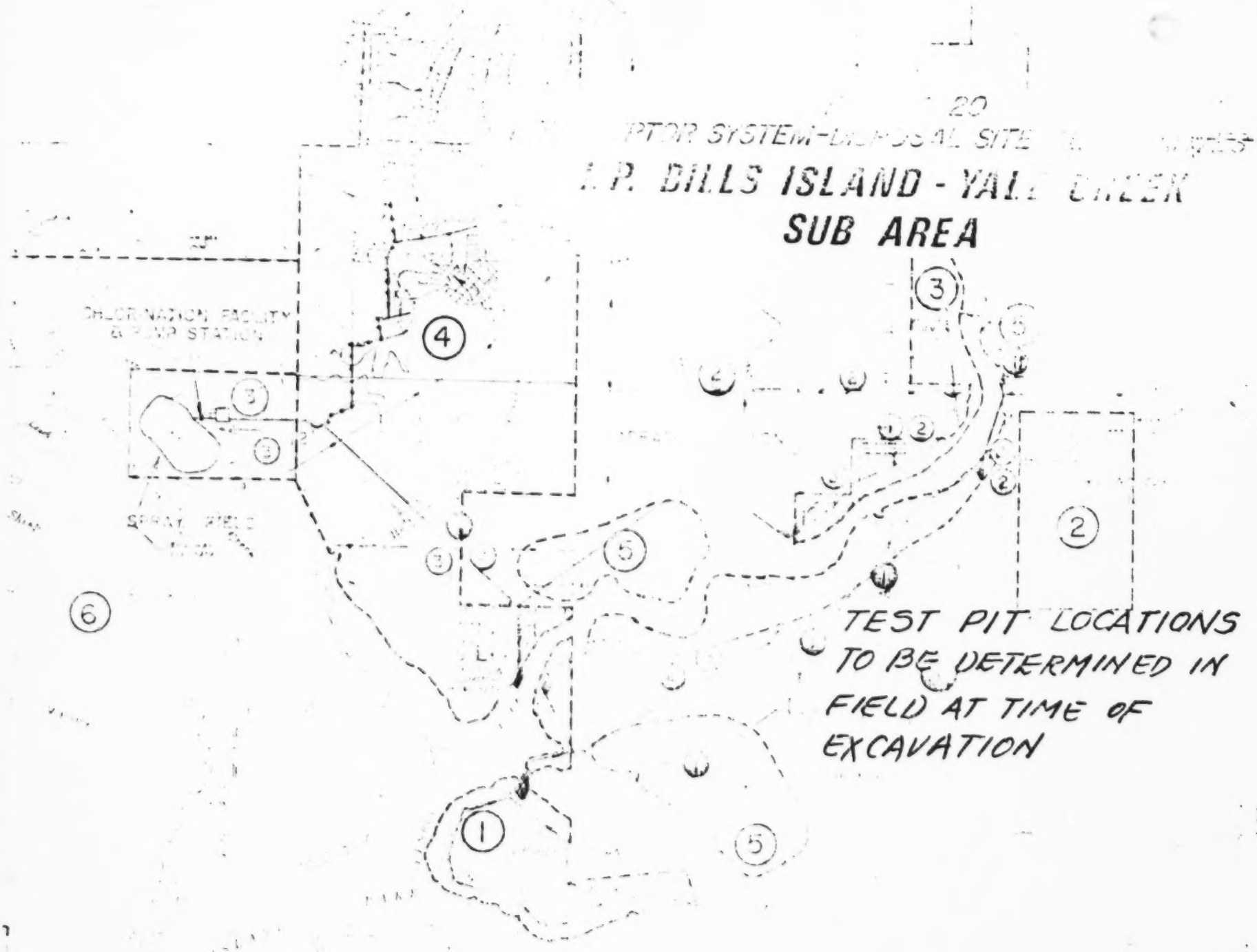
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PTOR SYSTEM-DISPOSAL SITE
I.R. DAILS ISLAND - YAL
SUB AREA
CHLORINATION FACILITY
& PUMP STATION
SPRAY FIELD
TEST PIT LOCATIONS
TO BE DETERMINED IN
FIELD AT TIME OF
EXCAVATION

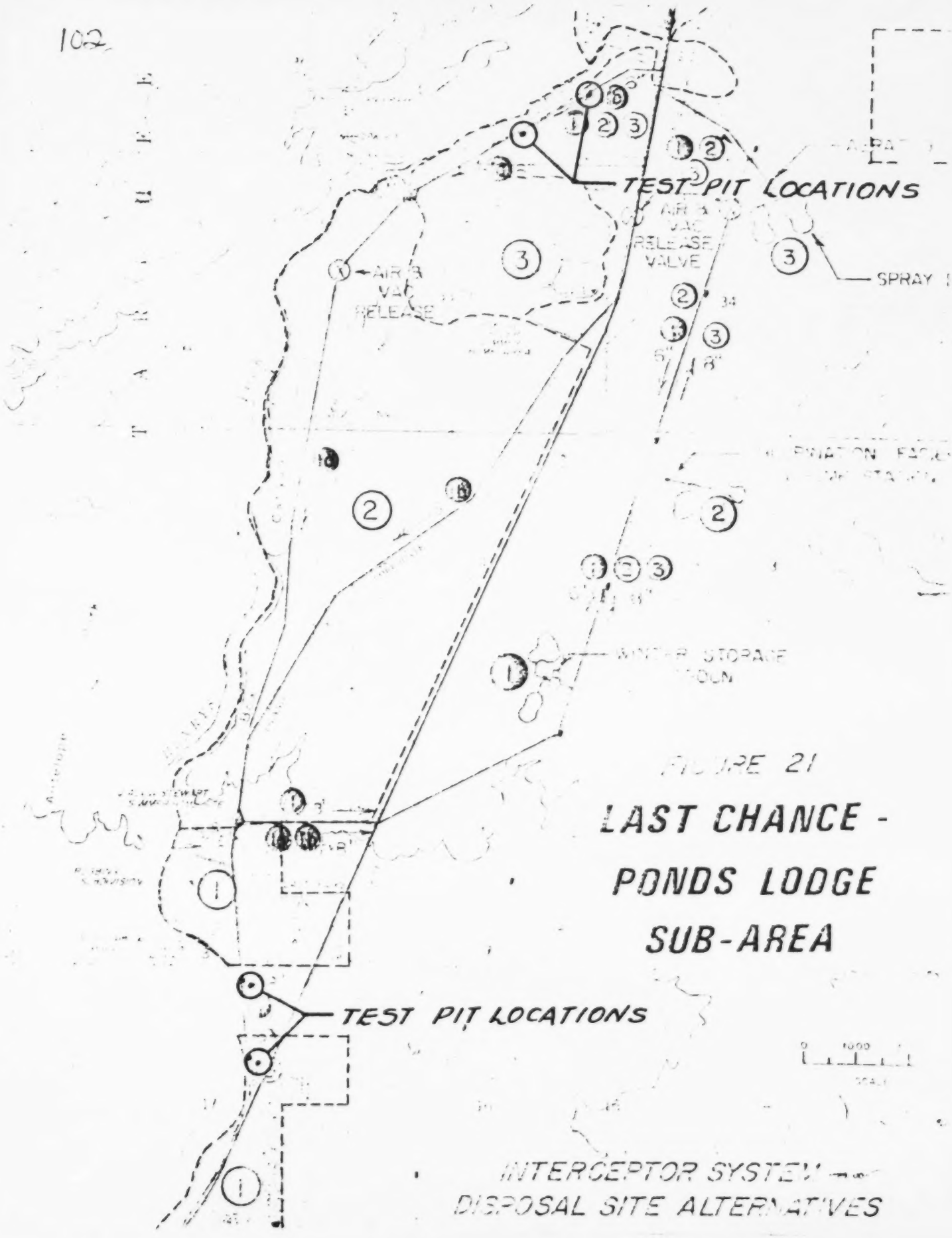


FIGURE 21

LAST CHANCE - PONDS LODGE SUB-AREA

INTERCEPTOR SYSTEM DISPOSAL SITE ALTERNATIVES

B-1

# BIBLIOGRAPHY

Fremont County "Application for Federal Assistance", (EPA Form 5700-12 (4-72)), June 6, 1974.

State of Idaho, Department of Environmental and Community Services, Rules and Regulations for the Establishment of Standards of Water Quality and for Wastewater Treatment Requirements for Waters of the State of Idaho, 1973.

Environmental Protection Agency (EPA),"Water quality profile of Henry's Lake to mouth of Henry's Fork, Island Park Study", Region X, Seattle, Washington, 1973.

Environmental Protection Agency (EPA) "Construction Grants for Wastewater Treatment Works", Federal Register, Volume 39, Number 29, Part III. 40 CFR Part 35, February 11, 1974.

Environmental Protection Agency (EPA), Manual for Preparation of Environmental Impact Statement for Wastewater Treatment Works, Facilities Plans, and 208 Areawide Waste Treatment Management Plans, Office of Federal Activities, 1974.

Fremont County Planning Commission, Fremont County Comprehensive Sewer and Water Plan, November, 1971.

Environmental Protection Agency (EPA), Final Regulations, "Preparation of Environmental Impact Statements", 40 CFR Part 6, April 14, 1975.

National Environmental Policy Act of 1969 (NEPA), P.L. 91-190.

Council on Environmental Quality (CEQ), "Guidelines for Preparation of Environmental Impact Statements", 40 CFR Part 1500, August 1, 1973.

Federal Water Pollution Control Act, As Amended, P.L. 92-500.

"Carrying Capacity: Maintaining Outdoor Recreation Quality", seminar paper by D. Lime and G. Stankey, USFS, 1971.